

BR CTF submission workbook

Submission Year	2016	Party	LATVIA
Submission Version	v2.0	Submission Level	Submitted
Submission Key	LVA_2016_V2.0	Submission Status	Closed
Submitted By	Agita Gancone	Workbook Created	11.03.2016 05:24:27
Submitted Date	11.03.2016 05:24:10		

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Table 1

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Emission trends: summary ⁽¹⁾
(Sheet 1 of 3)

<i>GREENHOUSE GAS EMISSIONS</i>	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	<i>kt CO₂ eq</i>								
CO ₂ emissions without net CO ₂ from LULUCF	19,539.34	19,539.34	17,787.49	14,097.51	11,805.81	10,307.09	9,059.01	9,133.74	8,604.93
CO ₂ emissions with net CO ₂ from LULUCF	9,756.92	9,756.92	7,753.70	2,633.77	1,203.70	-1,138.72	-1,369.62	-1,950.79	-822.74
CH ₄ emissions without CH ₄ from LULUCF	3,995.93	3,995.93	3,939.44	3,371.15	2,555.02	2,360.44	2,337.68	2,272.27	2,227.07
CH ₄ emissions with CH ₄ from LULUCF	4,299.65	4,299.65	4,238.30	3,751.55	2,860.00	2,664.16	2,652.30	2,590.14	2,549.81
N ₂ O emissions without N ₂ O from LULUCF	2,649.10	2,649.10	2,487.69	1,991.80	1,512.56	1,353.18	1,219.75	1,225.95	1,229.66
N ₂ O emissions with N ₂ O from LULUCF	3,228.30	3,228.30	3,071.88	2,590.46	2,107.94	1,953.71	1,827.86	1,838.79	1,846.86
HFCs	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.67	0.84	2.03
PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Unspecified mix of HFCs and PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
SF ₆	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.17	0.18	0.37
NF ₃	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Total (without LULUCF)	26,184.37	26,184.37	24,214.61	19,460.45	15,873.39	14,020.70	12,617.28	12,632.97	12,064.06
Total (with LULUCF)	17,284.87	17,284.87	15,063.89	8,975.77	6,171.63	3,479.14	3,111.38	2,479.16	3,576.33
Total (without LULUCF, with indirect)	26,326.48	26,326.48	24,356.19	19,601.22	16,011.12	14,156.04	12,750.47	12,764.51	12,194.29
Total (with LULUCF, with indirect)	17,426.98	17,426.98	15,205.47	9,116.54	6,309.35	3,614.48	3,244.57	2,610.70	3,706.57

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	<i>kt CO₂ eq</i>								
1. Energy	19,258.46	19,258.46	17,744.53	14,461.67	12,355.03	10,797.79	9,546.94	9,614.55	9,050.72
2. Industrial processes and product use	602.66	602.66	527.15	250.50	92.10	139.09	151.77	163.59	170.11
3. Agriculture	5,558.66	5,558.66	5,144.47	3,988.23	2,741.95	2,415.07	2,255.51	2,199.19	2,166.92
4. Land Use, Land-Use Change and Forestry ^b	-8,899.50	-8,899.50	-9,150.72	-10,484.68	-9,701.77	-10,541.56	-9,505.90	-10,153.82	-8,487.72
5. Waste	764.59	764.59	798.46	760.05	684.32	668.75	663.06	655.64	676.30
6. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (including LULUCF)	17,284.87	17,284.87	15,063.89	8,975.77	6,171.63	3,479.14	3,111.38	2,479.16	3,576.33

Note: All footnotes for this table are given on sheet 3.

¹ The common tabular format will be revised, in accordance with relevant decisions of the Conference of the Parties and, where applicable, with decisions of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol."

Table 1

LVA_BR2_v2.0

Emission trends: summary ⁽¹⁾
(Sheet 2 of 3)

<i>GREENHOUSE GAS EMISSIONS</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CO ₂ emissions without net CO ₂ from LULUCF	8,227.86	7,643.66	7,012.42	7,428.51	7,454.85	7,639.71	7,647.62	7,733.03	8,234.41	8,557.09
CO ₂ emissions with net CO ₂ from LULUCF	-326.90	2,368.97	-1,092.84	-1,436.80	38.36	726.44	2,244.71	2,708.24	2,164.40	3,197.95
CH ₄ emissions without CH ₄ from LULUCF	2,129.99	1,985.65	1,995.39	2,086.22	2,069.05	1,988.73	1,955.41	1,998.30	1,972.69	2,032.34
CH ₄ emissions with CH ₄ from LULUCF	2,455.04	2,343.19	2,339.18	2,391.81	2,403.03	2,301.91	2,262.47	2,279.00	2,295.10	2,311.69
N ₂ O emissions without N ₂ O from LULUCF	1,187.54	1,116.67	1,133.07	1,230.08	1,192.28	1,246.07	1,226.59	1,280.18	1,289.92	1,334.67
N ₂ O emissions with N ₂ O from LULUCF	1,808.83	1,745.63	1,763.86	1,861.50	1,832.37	1,888.84	1,871.33	1,926.05	1,947.44	1,990.01
HFCs	3.09	3.49	5.47	8.13	10.60	13.38	18.03	24.51	42.22	63.20
PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Unspecified mix of HFCs and PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
SF ₆	0.52	0.71	0.88	1.39	2.62	2.76	3.25	3.78	4.07	4.55
NF ₃	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Total (without LULUCF)	11,549.00	10,750.18	10,147.24	10,754.33	10,729.39	10,890.64	10,850.90	11,039.79	11,543.31	11,991.85
Total (with LULUCF)	3,940.57	6,461.99	3,016.55	2,826.03	4,286.98	4,933.33	6,399.79	6,941.58	6,453.24	7,567.40
Total (without LULUCF, with indirect)	11,677.95	10,877.97	10,273.87	10,879.69	10,853.03	11,013.12	10,972.17	11,160.46	11,664.32	12,105.69
Total (with LULUCF, with indirect)	4,069.53	6,589.78	3,143.18	2,951.39	4,410.62	5,055.81	6,521.06	7,062.25	6,574.24	7,681.24

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	8,637.88	8,001.91	7,383.68	7,817.48	7,820.23	7,973.21	8,005.95	8,111.14	8,532.88	8,852.18
2. Industrial processes and product use	172.92	205.67	158.61	181.79	195.76	211.11	229.35	229.46	277.19	301.50
3. Agriculture	2,052.36	1,860.43	1,859.64	1,979.87	1,965.20	2,017.84	1,940.71	2,015.26	2,023.13	2,105.92
4. Land Use, Land-Use Change and Forestry ^b	-7,608.42	-4,288.19	-7,130.69	-7,928.30	-6,442.41	-5,957.31	-4,451.11	-4,098.21	-5,090.07	-4,424.45
5. Waste	685.83	682.18	745.31	775.20	748.21	688.47	674.89	683.93	710.12	732.25
6. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total (including LULUCF)	3,940.57	6,461.99	3,016.55	2,826.03	4,286.98	4,933.33	6,399.79	6,941.58	6,453.24	7,567.40

Note: All footnotes for this table are given on sheet 3.

Table 1

LVA_BR2_v2.0

Emission trends: summary ⁽¹⁾
(Sheet 3 of 3)

GREENHOUSE GAS EMISSIONS	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
	(%)						
CO ₂ emissions without net CO ₂ from LULUCF	8,127.83	7,392.13	8,478.49	7,734.62	7,414.61	7,276.02	-62.76
CO ₂ emissions with net CO ₂ from LULUCF	2,386.62	5,244.62	8,376.65	7,244.62	5,973.77	6,080.75	-37.68
CH ₄ emissions without CH ₄ from LULUCF	2,026.35	1,979.40	1,958.76	1,923.95	1,994.42	2,036.42	-49.04
CH ₄ emissions with CH ₄ from LULUCF	2,304.35	2,277.06	2,263.10	2,240.68	2,326.28	2,385.07	-44.53
N ₂ O emissions without N ₂ O from LULUCF	1,323.88	1,341.02	1,372.67	1,382.42	1,458.88	1,484.32	-43.97
N ₂ O emissions with N ₂ O from LULUCF	1,983.62	2,013.13	2,051.69	2,067.63	2,151.02	2,183.16	-32.37
HFCs	79.57	83.14	79.68	82.11	90.96	108.46	
PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Unspecified mix of HFCs and PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
SF ₆	5.23	7.33	7.35	7.47	7.78	8.50	
NF ₃	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Total (without LULUCF)	11,562.85	10,803.02	11,896.94	11,130.56	10,966.65	10,913.73	-58.32
Total (with LULUCF)	6,759.39	9,625.27	12,778.46	11,642.50	10,549.81	10,765.95	-37.71
Total (without LULUCF, with indirect)	11,680.38	10,913.13	12,011.12	11,244.09	11,078.53	11,025.43	-58.12
Total (with LULUCF, with indirect)	6,876.91	9,735.39	12,892.64	11,756.03	10,661.69	10,877.65	-37.58

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
	(%)						
1. Energy	8,405.16	7,699.60	8,452.79	7,589.42	7,290.72	7,185.09	-62.69
2. Industrial processes and product use	309.45	304.85	566.74	658.90	688.14	668.97	11.00
3. Agriculture	2,076.27	2,092.61	2,140.57	2,154.55	2,250.52	2,310.12	-58.44
4. Land Use, Land-Use Change and Forestry ^b	-4,803.46	-1,177.74	881.52	511.94	-416.84	-147.78	-98.34
5. Waste	771.97	705.96	736.84	727.69	737.27	749.54	-1.97
6. Other	NO	NO	NO	NO	NO	NO	
Total (including LULUCF)	6,759.39	9,625.27	12,778.46	11,642.50	10,549.81	10,765.95	-37.71

Notes:

(1) Further detailed information could be found in the common reporting format tables of the Party's greenhouse gas inventory, namely "Emission trends (CO₂)", "Emission trends (CH₄)", "Emission trends (N₂O)" and "Emission trends (HFCs, PFCs and SF₆)", which is included in an annex to this biennial report.

(2) 2011 is the latest reported inventory year.

(3) 1 kt CO₂ eq equals 1 Gg CO₂ eq.

Abbreviation: LULUCF = land use, land-use change and forestry.

^a The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

^b Includes net CO₂, CH₄ and N₂O from LULUCF.

Custom Footnotes

Table 1 (a)
Emission trends (CO₂)
(Sheet 1 of 3)

LVA_BR2_v2.0

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	18,556.81	18,556.81	17,021.04	13,808.80	11,709.08	10,164.95	8,905.57	8,969.08	8,435.31
A. Fuel combustion (sectoral approach)	18,556.80	18,556.80	17,021.02	13,808.79	11,709.07	10,164.94	8,905.56	8,969.07	8,435.31
1. Energy industries	6,201.22	6,201.22	5,692.55	4,861.46	3,939.64	3,712.96	3,391.71	3,511.75	3,275.72
2. Manufacturing industries and construction	3,889.62	3,889.62	2,935.87	2,492.18	2,159.26	1,960.11	1,909.08	1,865.84	1,818.00
3. Transport	2,930.37	2,930.37	2,744.56	2,449.39	2,259.59	2,143.87	2,040.66	2,006.00	1,997.55
4. Other sectors	5,535.58	5,535.58	5,648.04	4,005.76	3,350.58	2,347.99	1,564.12	1,585.29	1,343.94
5. Other	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	0.19
B. Fugitive emissions from fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
C. CO ₂ transport and storage	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Industrial processes	602.59	602.59	527.10	250.46	92.06	139.04	150.89	162.54	167.64
A. Mineral industry	589.20	589.20	518.03	244.41	84.67	132.13	146.11	158.69	159.31
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	12.82	12.82	8.70	5.73	7.00	6.55	4.43	3.48	7.99
D. Non-energy products from fuels and solvent use	0.58	0.58	0.37	0.32	0.39	0.37	0.35	0.36	0.33
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	NA	NA	NA
H. Other	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
3. Agriculture	379.13	379.13	238.59	37.52	4.00	2.46	1.96	1.52	1.33
A. Enteric fermentation									
B. Manure management									
C. Rice cultivation									
D. Agricultural soils									
E. Prescribed burning of savannas									
F. Field burning of agricultural residues									
G. Liming	371.42	371.42	231.99	33.65	1.67	0.76	1.29	0.67	0.19
H. Urea application	7.71	7.71	6.59	3.87	2.33	1.70	0.67	0.85	1.14
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	NO	NO	NO
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land Use, Land-Use Change and Forestry	-9,782.42	-9,782.42	-10,033.79	-11,463.74	-10,602.11	-11,445.81	-10,428.63	-11,084.53	-9,427.67
A. Forest land	-15,040.33	-15,040.33	-15,831.67	-16,306.33	-15,476.58	-15,953.71	-14,565.04	-14,606.06	-12,084.56
B. Cropland	3,249.06	3,249.06	3,280.45	3,302.13	3,326.69	3,348.09	3,368.44	3,053.24	3,053.50
C. Grassland	851.29	851.29	820.87	796.51	765.71	732.70	699.13	661.58	624.32
D. Wetlands	1,215.01	1,215.01	1,744.39	565.19	252.13	385.26	394.87	378.51	427.78
E. Settlements	108.91	108.91	115.11	122.10	131.99	139.04	147.95	118.59	123.56
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products	-166.36	-166.36	-162.93	56.66	397.94	-97.18	-473.98	-690.40	-1,572.27
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	0.81	0.81	0.77	0.72	0.67	0.63	0.58	0.61	0.65
A. Solid waste disposal	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
B. Biological treatment of solid waste									
C. Incineration and open burning of waste	0.81	0.81	0.77	0.72	0.67	0.63	0.58	0.61	0.65
D. Waste water treatment and discharge									
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO
Memo items:									
International bunkers	1,721.08	1,721.08	747.50	653.73	756.98	963.50	554.58	408.31	324.27
Aviation	221.15	221.15	299.01	84.10	84.10	77.87	77.87	99.67	99.67
Navigation	1,499.94	1,499.94	448.49	569.64	672.88	885.63	476.72	308.64	224.60
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO₂ emissions from biomass	2,964.03	2,964.03	3,476.19	3,466.38	3,862.23	4,003.92	4,538.64	4,744.49	4,755.49
CO₂ captured	NO	NO	NO	NO	NO	NO	NO	NO	NO
Long-term storage of C in waste disposal sites	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indirect N₂O									
Indirect CO₂ (3)	142.11	142.11	141.58	140.77	137.72	135.33	133.19	131.54	130.24
Total CO₂ equivalent emissions without land use, land-use change and forestry	26,184.37	26,184.37	24,214.61	19,460.45	15,873.39	14,020.70	12,617.28	12,632.97	12,064.06
Total CO₂ equivalent emissions with land use, land-use change and forestry	17,284.87	17,284.87	15,063.89	8,975.77	6,171.63	3,479.14	3,111.38	2,479.16	3,576.33
Total CO₂ equivalent emissions, including indirect CO₂, without land use, land-use change and forestry	19,681.45	19,681.45	17,929.07	14,238.28	11,943.53	10,442.42	9,192.20	9,265.28	8,735.17
Total CO₂ equivalent emissions, including indirect CO₂, with land use, land-use change and forestry	9,899.03	9,899.03	7,895.28	2,774.54	1,341.42	-1,003.39	-1,236.43	-1,819.25	-692.50

Note: All footnotes for this table are given on sheet 3.

Table 1 (a)
Emission trends (CO₂)
(Sheet 2 of 3)

LVA_BR2_v2.0

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	8,054.53	7,438.06	6,852.83	7,251.76	7,251.94	7,417.36	7,436.71	7,528.48	7,999.21	8,315.68
A. Fuel combustion (sectoral approach)	8,054.52	7,438.05	6,852.82	7,251.76	7,251.93	7,417.36	7,436.70	7,528.48	7,999.20	8,315.68
1. Energy industries	3,338.13	2,919.47	2,474.11	2,421.19	2,317.01	2,246.23	2,056.91	2,047.02	2,073.74	1,944.72
2. Manufacturing industries and construction	1,589.62	1,441.60	1,177.84	1,078.32	1,125.46	1,132.98	1,149.31	1,153.03	1,223.89	1,216.41
3. Transport	1,972.62	1,940.55	2,149.98	2,542.26	2,619.80	2,763.23	2,902.53	3,028.08	3,340.06	3,780.74
4. Other sectors	1,153.96	1,136.28	1,050.76	1,209.82	1,182.77	1,268.75	1,318.31	1,292.72	1,354.01	1,370.96
5. Other	0.19	0.15	0.14	0.17	6.88	6.16	9.63	7.62	7.51	2.84
B. Fugitive emissions from fuels	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
C. CO2 transport and storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Industrial processes	169.26	201.40	152.19	172.19	182.47	194.91	208.00	201.10	230.81	233.68
A. Mineral industry	160.38	193.30	143.39	163.77	174.47	182.32	194.36	183.31	212.83	218.10
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	8.50	7.71	8.42	8.04	7.60	12.16	12.90	12.35	12.56	14.57
D. Non-energy products from fuels and solvent use	0.38	0.39	0.39	0.39	0.40	0.43	0.73	0.59	0.69	1.01
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H. Other	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	4.85	4.73	NO, NA
3. Agriculture	3.39	3.45	6.21	2.19	20.14	27.07	2.47	3.00	2.86	6.53
A. Enteric fermentation										
B. Manure management										
C. Rice cultivation										
D. Agricultural soils										
E. Prescribed burning of savannas										
F. Field burning of agricultural residues										
G. Liming	2.24	2.34	4.86	0.33	15.68	25.64	1.05	1.57	1.43	5.10
H. Urea application	1.15	1.11	1.35	1.85	4.46	1.42	1.42	1.43	1.43	1.43
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land Use, Land-Use Change and Forestry	-8,554.77	-5,274.69	-8,105.26	-8,865.31	-7,416.49	-6,913.26	-5,402.91	-5,024.79	-6,070.00	-5,359.13
A. Forest land	-10,685.23	-7,494.70	-9,940.37	-10,965.44	-9,823.41	-9,180.83	-7,764.35	-7,542.89	-8,751.66	-8,185.48
B. Cropland	3,052.98	3,055.17	3,052.08	3,019.98	3,014.92	3,013.36	3,010.85	3,006.31	3,001.18	2,993.16
C. Grassland	594.56	553.28	519.37	474.57	441.39	406.10	364.80	322.28	278.56	197.61
D. Wetlands	326.30	780.41	552.61	634.29	996.91	848.05	855.05	1,088.02	1,332.87	689.86
E. Settlements	130.93	137.90	144.20	296.92	310.61	324.01	336.87	349.82	362.01	310.56
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products	-1,974.30	-2,306.76	-2,433.15	-2,325.63	-2,356.91	-2,323.94	-2,206.12	-2,248.32	-2,292.96	-1,364.85
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	0.68	0.75	1.19	2.36	0.30	0.37	0.45	0.44	1.53	1.20
A. Solid waste disposal	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
B. Biological treatment of solid waste										
C. Incineration and open burning of waste	0.68	0.75	1.19	2.36	0.30	0.37	0.45	0.44	1.53	1.20
D. Waste water treatment and discharge										
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Memo items:										
International bunkers	137.42	121.77	106.14	697.07	733.88	714.90	788.19	1,003.69	825.81	810.74
Aviation	90.33	90.33	80.98	80.98	84.10	121.50	148.08	179.57	201.59	245.82
Navigation	47.10	31.44	25.15	616.09	649.79	593.40	640.11	824.12	624.22	564.93
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO2 emissions from biomass	4,693.46	4,608.88	4,283.36	4,783.36	4,753.46	5,046.98	5,322.48	5,329.70	5,371.17	5,248.42
CO2 captured	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Long-term storage of C in waste disposal sites	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indirect N2O										
Indirect CO2 (3)	128.95	127.79	126.63	125.36	123.63	122.48	121.27	120.68	121.00	113.85
Total CO2 equivalent emissions without land use, land-use change and forestry	11,549.00	10,750.18	10,147.24	10,754.33	10,729.39	10,890.64	10,850.90	11,039.79	11,543.31	11,991.85
Total CO2 equivalent emissions with land use, land-use change and forestry	3,940.57	6,461.99	3,016.55	2,826.03	4,286.98	4,933.33	6,399.79	6,941.58	6,453.24	7,567.40
Total CO2 equivalent emissions, including indirect CO2, without land use, land-use change and forestry	8,356.82	7,771.45	7,139.05	7,553.87	7,578.48	7,762.19	7,768.89	7,853.70	8,355.41	8,670.93
Total CO2 equivalent emissions, including indirect CO2, with land use, land-use change and forestry	-197.95	2,496.76	-966.21	-1,311.44	161.99	848.93	2,365.98	2,828.91	2,285.40	3,311.80

Note: All footnotes for this table are given on sheet 3.

Table 1(a)

LVA_BR2_v2.0

Emission trends (CO₂)
(Sheet 3 of 3)

	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>							
	%						
1. Energy	7,896.71	7,168.97	7,992.45	7,152.43	6,808.91	6,705.77	-63.86
A. Fuel combustion (sectoral approach)	7,896.70	7,168.96	7,992.44	7,152.43	6,808.90	6,705.76	-63.86
1. Energy industries	1,917.50	1,866.76	2,249.56	2,071.47	1,855.35	1,918.68	-69.06
2. Manufacturing industries and construction	1,112.86	887.11	1,078.96	878.52	931.37	761.10	-80.43
3. Transport	3,570.62	3,130.02	3,197.78	2,839.45	2,736.39	2,772.11	-5.40
4. Other sectors	1,292.32	1,279.73	1,458.28	1,355.77	1,278.47	1,247.42	-77.47
5. Other	3.41	5.34	7.87	7.22	7.33	6.45	
B. Fugitive emissions from fuels	0.00	0.00	0.00	0.00	0.00	0.01	-30.46
1. Solid fuels	NO	NO	NO	NO	NO	NO	
2. Oil and natural gas and other emissions from energy production	0.00	0.00	0.00	0.00	0.00	0.01	-30.46
C. CO ₂ transport and storage	NO	NO	NO	NO	NO	NO	
2. Industrial processes	224.58	214.33	479.64	569.29	589.29	551.98	-8.40
A. Mineral industry	214.80	203.91	467.36	567.56	585.36	549.95	-6.66
B. Chemical industry	NO	NO	NO	NO	NO	NO	
C. Metal industry	8.73	9.56	11.28	0.72	2.87	0.96	-92.55
D. Non-energy products from fuels and solvent use	1.06	0.86	1.00	1.02	1.06	1.08	87.19
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	
H. Other	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
3. Agriculture	6.03	8.50	6.05	12.55	16.09	17.85	-95.29
A. Enteric fermentation							
B. Manure management							
C. Rice cultivation							
D. Agricultural soils							
E. Prescribed burning of savannas							
F. Field burning of agricultural residues							
G. Liming	2.86	4.15	2.05	8.29	10.30	13.78	-96.29
H. Urea application	3.17	4.35	4.00	4.25	5.79	4.08	-47.13
I. Other carbon-containing fertilizers	NO	NO	NO	NO	NO	NO	
J. Other	NO	NO	NO	NO	NO	NO	
4. Land Use, Land-Use Change and Forestry	-5,741.21	-2,147.52	-101.84	-490.00	-1,440.84	-1,195.27	-87.78
A. Forest land	-9,231.69	-5,598.06	-3,004.15	-3,222.23	-4,242.75	-3,952.38	-73.72
B. Cropland	2,988.14	2,741.84	2,722.50	2,715.33	2,708.31	2,700.97	-16.87
C. Grassland	151.88	142.24	132.50	151.93	170.91	188.32	-77.88
D. Wetlands	1,073.95	948.80	989.29	991.07	958.77	1,003.23	-17.43
E. Settlements	323.90	844.01	885.87	916.33	969.06	1,006.11	823.83
F. Other land	NO	NO	NO	NO	NO	NO	
G. Harvested wood products	-1,047.38	-1,226.35	-1,827.85	-2,042.44	-2,005.14	-2,141.52	1,187.31
H. Other	NO	NO	NO	NO	NO	NO	
5. Waste	0.51	0.34	0.34	0.34	0.32	0.43	-47.28
A. Solid waste disposal	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
B. Biological treatment of solid waste							
C. Incineration and open burning of waste	0.51	0.34	0.34	0.34	0.32	0.43	-47.28
D. Waste water treatment and discharge							
E. Other	NO	NO	NO	NO	NO	NO	
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	
Memo items:							
International bunkers	950.79	1,181.67	1,156.28	1,038.54	1,125.20	1,118.11	-35.03
Aviation	296.15	311.90	357.76	359.15	363.38	375.15	69.64
Navigation	654.64	869.77	798.52	679.39	761.83	742.95	-50.47
Multilateral operations	NA	NA	NA	NA	NA	NA	
CO₂ emissions from biomass	4,971.89	5,682.66	5,054.93	5,286.10	5,923.17	5,992.02	102.16
CO₂ captured	NO	NO	NO	NO	NO	NO	
Long-term storage of C in waste disposal sites	NA	NA	NA	NA	NA	NA	
Indirect N₂O							
Indirect CO₂ (3)	117.52	110.11	114.18	113.53	111.89	111.70	-21.40
Total CO₂ equivalent emissions without land use, land-use change and forestry	11,562.85	10,803.02	11,896.94	11,130.56	10,966.65	10,913.73	-58.32
Total CO₂ equivalent emissions with land use, land-use change and forestry	6,759.39	9,625.27	12,778.46	11,642.50	10,549.81	10,765.95	-37.71
Total CO₂ equivalent emissions, including indirect CO₂, without land use, land-use change and forestry	8,245.35	7,502.24	8,592.67	7,848.15	7,526.50	7,387.73	-62.46
Total CO₂ equivalent emissions, including indirect CO₂, with land use, land-use change and forestry	2,504.14	5,354.73	8,490.83	7,358.15	6,085.66	6,192.45	-37.44

Abbreviations: CRF = common reporting format, LULUCF = land use, land-use change and forestry.

^a The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

^b Fill in net emissions/removals as reported in CRF table Summary 1.A of the latest reported inventory year. For the purposes of reporting, the signs for removals are always negative (-) and for emissions positive (+).

Custom Footnotes

Table 1(b)

LVA_BR2_v2.0

Emission trends (CH₄)
(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	22.11	22.11	23.09	20.94	21.30	20.99	21.26	21.32	20.14
A. Fuel combustion (sectoral approach)	12.21	12.21	13.55	12.24	12.99	12.86	13.35	13.69	13.02
1. Energy industries	0.19	0.19	0.17	0.15	0.14	0.15	0.12	0.15	0.19
2. Manufacturing industries and construction	0.22	0.22	0.12	0.11	0.13	0.13	0.14	0.15	0.15
3. Transport	0.79	0.79	0.73	0.69	0.67	0.64	0.58	0.55	0.52
4. Other sectors	11.00	11.00	12.53	11.29	12.05	11.94	12.51	12.84	12.17
5. Other	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	0.00	0.00
B. Fugitive emissions from fuels	9.90	9.90	9.54	8.70	8.32	8.13	7.92	7.63	7.12
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	9.90	9.90	9.54	8.70	8.32	8.13	7.92	7.63	7.12
C. CO ₂ transport and storage									
2. Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A. Mineral industry									
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Non-energy products from fuels and solvent use	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	NA	NA	NA
H. Other	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
3. Agriculture	107.62	107.62	103.03	83.98	54.04	47.18	46.24	43.87	42.43
A. Enteric fermentation	91.28	91.28	87.80	73.22	47.23	40.78	39.67	37.94	36.79
B. Manure management	16.34	16.34	15.22	10.76	6.81	6.40	6.57	5.94	5.63
C. Rice cultivation	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural soils	NE	NE	NE	NE	NE	NE	NE	NE	NE
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Liming									
H. Urea application									
I. Other carbon-containing fertilizers									
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	12.15	12.15	11.95	15.22	12.20	12.15	12.58	12.71	12.91
A. Forest land	3.35	3.35	3.16	6.44	3.44	3.41	3.87	4.02	4.25
B. Cropland	5.00	5.00	5.01	5.00	4.99	4.98	4.96	4.94	4.93
C. Grassland	2.65	2.65	2.64	2.64	2.63	2.62	2.61	2.61	2.59
D. Wetlands	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products									
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	30.11	30.11	31.46	29.93	26.86	26.25	26.01	25.69	26.52
A. Solid waste disposal	15.71	15.71	16.29	16.76	17.13	17.40	17.57	17.78	18.05
B. Biological treatment of solid waste	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE
C. Incineration and open burning of waste	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE
D. Waste water treatment and discharge	14.39	14.39	15.17	13.17	9.73	8.85	8.44	7.92	8.47
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total CH₄ emissions without CH₄ from LULUCF	159.84	159.84	157.58	134.85	102.20	94.42	93.51	90.89	89.08
Total CH₄ emissions with CH₄ from LULUCF	171.99	171.99	169.53	150.06	114.40	106.57	106.09	103.61	101.99
Memo items:									
International bunkers	0.10	0.10	0.03	0.04	0.04	0.06	0.03	0.02	0.01
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Navigation	0.09	0.09	0.03	0.04	0.04	0.06	0.03	0.02	0.01
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO₂ emissions from biomass									
CO₂ captured									
Long-term storage of C in waste disposal sites									
Indirect N₂O									
Indirect CO₂ (3)									

Note: All footnotes for this table are given on sheet 3.

Table 1(b)

LVA_BR2_v2.0

Emission trends (CH₄)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1. Energy	19.02	18.46	17.26	18.28	18.29	17.47	17.80	18.37	16.51	16.54
A. Fuel combustion (sectoral approach)	12.19	11.95	11.23	12.44	12.19	12.71	13.09	13.04	12.69	12.62
1. Energy industries	0.21	0.19	0.15	0.17	0.18	0.20	0.20	0.17	0.19	0.19
2. Manufacturing industries and construction	0.15	0.14	0.12	0.16	0.16	0.15	0.19	0.22	0.24	0.20
3. Transport	0.49	0.47	0.50	0.55	0.51	0.48	0.45	0.39	0.38	0.35
4. Other sectors	11.33	11.15	10.46	11.56	11.34	11.88	12.25	12.25	11.89	11.88
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Fugitive emissions from fuels	6.83	6.51	6.03	5.84	6.10	4.76	4.71	5.33	3.82	3.92
1. Solid fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2. Oil and natural gas and other emissions from energy production	6.83	6.51	6.03	5.84	6.10	4.76	4.71	5.33	3.82	3.92
C. CO ₂ transport and storage										
2. Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A. Mineral industry										
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D. Non-energy products from fuels and solvent use	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H. Other	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
3. Agriculture	39.38	34.30	33.48	35.15	34.99	34.85	33.64	34.55	34.74	36.14
A. Enteric fermentation	34.04	29.30	28.95	30.21	29.98	29.88	28.72	29.56	29.55	30.84
B. Manure management	5.34	5.00	4.54	4.94	5.01	4.97	4.92	4.99	5.19	5.30
C. Rice cultivation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural soils	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Liming										
H. Urea application										
I. Other carbon-containing fertilizers										
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	13.00	14.30	13.75	12.22	13.36	12.53	12.28	11.23	12.90	11.17
A. Forest land	4.37	5.69	5.17	3.67	4.81	4.00	3.81	2.81	4.43	2.82
B. Cropland	4.91	4.89	4.87	4.85	4.83	4.81	4.79	4.77	4.74	4.72
C. Grassland	2.59	2.58	2.57	2.57	2.58	2.58	2.54	2.51	2.58	2.49
D. Wetlands	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
E. Settlements	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products										
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	26.80	26.67	29.07	30.01	29.48	27.23	26.77	27.01	27.66	28.61
A. Solid waste disposal	18.37	18.74	19.15	19.62	19.51	17.88	17.09	17.63	18.38	19.36
B. Biological treatment of solid waste	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	0.01	0.03	0.03	0.05	0.04
C. Incineration and open burning of waste	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE
D. Waste water treatment and discharge	8.43	7.94	9.92	10.40	9.96	9.34	9.65	9.36	9.23	9.21
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total CH₄ emissions without CH₄ from LULUCF	85.20	79.43	79.82	83.45	82.76	79.55	78.22	79.93	78.91	81.29
Total CH₄ emissions with CH₄ from LULUCF	98.20	93.73	93.57	95.67	96.12	92.08	90.50	91.16	91.80	92.47
Memo items:										
International bunkers	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.05	0.04	0.04
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Navigation	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.05	0.04	0.03
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO₂ emissions from biomass										
CO₂ captured										
Long-term storage of C in waste disposal sites										
Indirect N₂O										
Indirect CO₂ (3)										

Note: All footnotes for this table are given on sheet 3.

Table 1(b)

LVA_BR2_v2.0

Emission trends (CH₄)

(Sheet 3 of 3)

	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>							
	%						
1. Energy	15.69	16.60	14.07	12.97	14.44	14.36	-35.03
A. Fuel combustion (sectoral approach)	11.66	12.80	10.40	10.45	11.25	10.32	-15.41
1. Energy industries	0.18	0.18	0.20	0.19	0.22	0.32	70.61
2. Manufacturing industries and construction	0.22	0.29	0.35	0.41	0.47	0.48	120.61
3. Transport	0.28	0.24	0.23	0.21	0.20	0.19	-75.98
4. Other sectors	10.99	12.09	9.61	9.64	10.36	9.33	-15.23
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	
B. Fugitive emissions from fuels	4.03	3.81	3.66	2.52	3.18	4.04	-59.21
1. Solid fuels	NO	NO	NO	NO	NO	NO	
2. Oil and natural gas and other emissions from energy production	4.03	3.81	3.66	2.52	3.18	4.04	-59.21
C. CO ₂ transport and storage							
2. Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	-64.87
A. Mineral industry							
B. Chemical industry	NO	NO	NO	NO	NO	NO	
C. Metal industry	0.00	0.00	0.00	0.00	0.00	0.00	-64.87
D. Non-energy products from fuels and solvent use	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	NA	NA	NA	NA	NA	NA	
H. Other	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
3. Agriculture	35.00	34.77	35.26	35.42	36.38	37.62	-65.04
A. Enteric fermentation	29.87	29.65	29.96	30.15	31.03	32.14	-64.79
B. Manure management	5.12	5.11	5.30	5.27	5.35	5.48	-66.47
C. Rice cultivation	NO	NO	NO	NO	NO	NO	
D. Agricultural soils	NE	NE	NE	NE	NE	NE	
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	
G. Liming							
H. Urea application							
I. Other carbon-containing fertilizers							
J. Other	NO	NO	NO	NO	NO	NO	
4. Land use, land-use change and forestry	11.12	11.91	12.17	12.67	13.27	13.95	14.79
A. Forest land	2.82	3.63	3.92	4.41	5.01	5.67	69.13
B. Cropland	4.69	4.67	4.66	4.68	4.69	4.71	-5.94
C. Grassland	2.47	2.47	2.45	2.44	2.43	2.43	-8.45
D. Wetlands	1.14	1.14	1.14	1.14	1.14	1.14	0.00
E. Settlements	NO	NO	NO	NO	NO	NO	
F. Other land	NO	NO	NO	NO	NO	NO	
G. Harvested wood products							
H. Other	NO	NO	NO	NO	NO	NO	
5. Waste	30.36	27.81	29.03	28.56	28.96	29.47	-2.11
A. Solid waste disposal	20.16	20.35	20.73	20.91	21.36	21.32	35.66
B. Biological treatment of solid waste	0.04	0.06	0.07	0.09	0.07	0.06	
C. Incineration and open burning of waste	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	
D. Waste water treatment and discharge	10.16	7.40	8.22	7.56	7.53	8.10	-43.74
E. Other	NO	NO	NO	NO	NO	NO	
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	
Total CH₄ emissions without CH₄ from LULUCF	81.05	79.18	78.35	76.96	79.78	81.46	-49.04
Total CH₄ emissions with CH₄ from LULUCF	92.17	91.08	90.52	89.63	93.05	95.40	-44.53
Memo items:							
International bunkers	0.04	0.06	0.05	0.05	0.05	0.06	-42.00
Aviation	0.00	0.00	0.00	0.00	0.00	0.01	511.41
Navigation	0.04	0.05	0.05	0.04	0.05	0.05	-51.06
Multilateral operations	NA	NA	NA	NA	NA	NA	
CO₂ emissions from biomass							
CO₂ captured							
Long-term storage of C in waste disposal sites							
Indirect N₂O							
Indirect CO₂ (3)							

Abbreviations : CRF = common reporting format, LULUCF = land use, land-use change and fore

^a The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

Custom Footnotes

Table 1(c)

LVA_BR2_v2.0

Emission trends (N₂O)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
1. Energy	0.50	0.50	0.49	0.43	0.38	0.36	0.37	0.38	0.38
A. Fuel combustion (sectoral approach)	0.50	0.50	0.49	0.43	0.38	0.36	0.37	0.38	0.38
1. Energy industries	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2. Manufacturing industries and construction	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3. Transport	0.27	0.27	0.26	0.22	0.16	0.15	0.15	0.15	0.16
4. Other sectors	0.16	0.16	0.18	0.17	0.17	0.16	0.17	0.18	0.17
5. Other	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	0.00	0.00
B. Fugitive emissions from fuels	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
1. Solid fuels	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
2. Oil and natural gas and other emissions from energy production	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. CO ₂ transport and storage									
2. Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A. Mineral industry									
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
E. Electronic industry									
F. Product uses as ODS substitutes									
G. Other product manufacture and use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H. Other	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
3. Agriculture	8.35	8.35	7.82	6.21	4.65	4.14	3.68	3.69	3.71
A. Enteric fermentation									
B. Manure management	1.02	1.02	0.99	0.80	0.52	0.45	0.45	0.42	0.39
C. Rice cultivation									
D. Agricultural soils	7.33	7.33	6.83	5.41	4.13	3.68	3.24	3.27	3.32
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Liming									
H. Urea application									
I. Other carbon containing fertilizers									
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	1.94	1.94	1.96	2.01	2.00	2.02	2.04	2.06	2.07
A. Forest land	1.92	1.92	1.91	1.95	1.92	1.91	1.92	1.92	1.93
B. Cropland	0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.07
C. Grassland	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.03	0.03
D. Wetlands	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
E. Settlements	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products									
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
A. Solid waste disposal									
B. Biological treatment of solid waste	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE
C. Incineration and open burning of waste	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
D. Waste water treatment and discharge	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total direct N₂O emissions without N₂O from LULUCF	8.89	8.89	8.35	6.68	5.08	4.54	4.09	4.11	4.13
Total direct N₂O emissions with N₂O from LULUCF	10.83	10.83	10.31	8.69	7.07	6.56	6.13	6.17	6.20
Memo items:									
International bunkers	0.19	0.19	0.04	0.04	0.06	0.11	0.05	0.04	0.03
Aviation	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Navigation	0.18	0.18	0.03	0.03	0.06	0.11	0.04	0.03	0.03
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO₂ emissions from biomass									
CO₂ captured									
Long-term storage of C in waste disposal sites									
Indirect N₂O	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO
Indirect CO₂ (3)									

Note: All footnotes for this table are given on sheet 3.

Table 1(c)

LVA_BR2_v2.0

Emission trends (N₂O)

(Sheet 2 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
I. Energy	0.36	0.34	0.33	0.36	0.37	0.40	0.42	0.41	0.41	0.41
A. Fuel combustion (sectoral approach)	0.36	0.34	0.33	0.36	0.37	0.40	0.42	0.41	0.41	0.41
1. Energy industries	0.04	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02
2. Manufacturing industries and construction	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
3. Transport	0.15	0.14	0.15	0.16	0.17	0.19	0.20	0.19	0.19	0.20
4. Other sectors	0.16	0.15	0.14	0.16	0.16	0.16	0.17	0.17	0.16	0.16
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B. Fugitive emissions from fuels	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
1. Solid fuels	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
2. Oil and natural gas and other emissions from energy production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. CO ₂ transport and storage										
2. Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A. Mineral industry										
B. Chemical industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
C. Metal industry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Non-energy products from fuels and solvent use	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
E. Electronic industry										
F. Product uses as ODS substitutes										
G. Other product manufacture and use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H. Other	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
3. Agriculture	3.57	3.35	3.41	3.69	3.59	3.76	3.68	3.85	3.87	4.01
A. Enteric fermentation										
B. Manure management	0.36	0.32	0.34	0.37	0.36	0.36	0.35	0.36	0.37	0.38
C. Rice cultivation										
D. Agricultural soils	3.21	3.04	3.07	3.32	3.23	3.40	3.33	3.50	3.50	3.64
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Liming										
H. Urea application										
I. Other carbon containing fertilizers										
J. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4. Land use, land-use change and forestry	2.08	2.11	2.12	2.12	2.15	2.16	2.16	2.17	2.21	2.20
A. Forest land	1.93	1.94	1.93	1.92	1.93	1.93	1.92	1.91	1.93	1.91
B. Cropland	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11
C. Grassland	0.04	0.04	0.05	0.06	0.06	0.07	0.07	0.08	0.09	0.09
D. Wetlands	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
E. Settlements	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06
F. Other land	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
G. Harvested wood products										
H. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5. Waste	0.05	0.05	0.06	0.08	0.04	0.02	0.02	0.03	0.06	0.05
A. Solid waste disposal										
B. Biological treatment of solid waste	NO, NE	NO, NE	NO, NE	NO, NE	NO, NE	0.00	0.00	0.00	0.00	0.00
C. Incineration and open burning of waste	0.01	0.02	0.02	0.05	0.01	0.01	0.01	0.01	0.03	0.03
D. Waste water treatment and discharge	0.04	0.03	0.04	0.03	0.03	0.02	0.01	0.02	0.02	0.02
E. Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Total direct N₂O emissions without N₂O from LULUCF	3.99	3.75	3.80	4.13	4.00	4.18	4.12	4.30	4.33	4.48
Total direct N₂O emissions with N₂O from LULUCF	6.07	5.86	5.92	6.25	6.15	6.34	6.28	6.46	6.54	6.68
Memo items:										
International bunkers	0.02	0.02	0.01	0.14	0.12	0.11	0.11	0.13	0.10	0.09
Aviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Navigation	0.02	0.01	0.01	0.14	0.12	0.10	0.11	0.13	0.09	0.09
Multilateral operations	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CO₂ emissions from biomass										
CO₂ captured										
Long-term storage of C in waste disposal sites										
Indirect N₂O	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO
Indirect CO₂ (3)										

Note: All footnotes for this table are given on sheet 3.

Table 1(c)

LVA_BR2_v2.0

Emission trends (N₂O)

(Sheet 3 of 3)

	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>							
	%						
1. Energy	0.39	0.39	0.36	0.38	0.41	0.40	-19.28
A. Fuel combustion (sectoral approach)	0.39	0.39	0.36	0.38	0.41	0.40	-19.28
1. Energy industries	0.02	0.02	0.03	0.02	0.03	0.04	13.00
2. Manufacturing industries and construction	0.03	0.04	0.05	0.06	0.07	0.07	124.88
3. Transport	0.19	0.16	0.16	0.16	0.17	0.17	-38.21
4. Other sectors	0.15	0.16	0.13	0.13	0.14	0.13	-21.58
5. Other	0.00	0.00	0.00	0.00	0.00	0.00	
B. Fugitive emissions from fuels	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
1. Solid fuels	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
2. Oil and natural gas and other emissions from energy production	NO	NO	NO	NO	NO	NO	
C. CO ₂ transport and storage							
2. Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	12.50
A. Mineral industry							
B. Chemical industry	NO	NO	NO	NO	NO	NO	
C. Metal industry	NO	NO	NO	NO	NO	NO	
D. Non-energy products from fuels and solvent use	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
E. Electronic industry							
F. Product uses as ODS substitutes							
G. Other product manufacture and use	0.00	0.00	0.00	0.00	0.00	0.00	12.50
H. Other	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
3. Agriculture	4.01	4.08	4.21	4.22	4.45	4.54	-45.69
A. Enteric fermentation							
B. Manure management	0.36	0.36	0.35	0.35	0.36	0.37	-63.57
C. Rice cultivation							
D. Agricultural soils	3.65	3.72	3.85	3.87	4.09	4.16	-43.19
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	
F. Field burning of agricultural residues	NO	NO	NO	NO	NO	NO	
G. Liming							
H. Urea application							
I. Other carbon containing fertilizers							
J. Other	NO	NO	NO	NO	NO	NO	
4. Land use, land-use change and forestry	2.21	2.26	2.28	2.30	2.32	2.35	20.66
A. Forest land	1.91	1.93	1.94	1.95	1.97	1.98	3.54
B. Cropland	0.12	0.12	0.11	0.10	0.09	0.08	616.32
C. Grassland	0.10	0.10	0.10	0.09	0.09	0.09	47,128.79
D. Wetlands	0.01	0.01	0.01	0.01	0.01	0.01	0.00
E. Settlements	0.07	0.09	0.11	0.13	0.15	0.18	5,672.45
F. Other land	NO	NO	NO	NO	NO	NO	
G. Harvested wood products							
H. Other	NO	NO	NO	NO	NO	NO	
5. Waste	0.04	0.04	0.04	0.04	0.04	0.04	11.09
A. Solid waste disposal							
B. Biological treatment of solid waste	0.00	0.00	0.01	0.01	0.01	0.00	
C. Incineration and open burning of waste	0.01	0.01	0.01	0.01	0.01	0.01	-11.01
D. Waste water treatment and discharge	0.03	0.02	0.02	0.03	0.03	0.02	7.69
E. Other	NO	NO	NO	NO	NO	NO	
6. Other (as specified in the summary table in CRF)	NO	NO	NO	NO	NO	NO	
Total direct N₂O emissions without N₂O from LULUCF	4.44	4.50	4.61	4.64	4.90	4.98	-43.97
Total direct N₂O emissions with N₂O from LULUCF	6.66	6.76	6.88	6.94	7.22	7.33	-32.37
Memo items:							
International bunkers	0.08	0.11	0.12	0.12	0.14	0.12	-34.13
Aviation	0.01	0.01	0.01	0.01	0.01	0.01	140.94
Navigation	0.07	0.10	0.10	0.11	0.12	0.11	-40.10
Multilateral operations	NA	NA	NA	NA	NA	NA	
CO₂ emissions from biomass							
CO₂ captured							
Long-term storage of C in waste disposal sites							
Indirect N₂O	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	IE, NA, NO	
Indirect CO₂ (3)							

Abbreviations : CRF = common reporting format, LULUCF = land use, land-use change and fore

^a The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

Custom Footnotes

Table 1(d)

LVA_BR2_v2.0

Emission trends (HFCs, PFCs and SF₆)

(Sheet 1 of 3)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997
	kt								
Emissions of HFCs and PFCs - (kt CO₂ equivalent)	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.67	0.84	2.03
Emissions of HFCs - (kt CO₂ equivalent)	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.67	0.84	2.03
HFC-23	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.00	0.00	0.00
HFC-32	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NE, NA, NO	NE, NA, NO	NE, NA, NO
HFC-41	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-43-10mee	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-125	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE
HFC-134	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-134a	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.00	0.00	0.00
HFC-143	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-143a	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE
HFC-152	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-152a	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA, NE	NO, NA, NE	NO, NA, NE
HFC-161	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-227ea	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE
HFC-236cb	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-236ea	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-236fa	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-245ca	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-245fa	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA, NE	NO, NA, NE	NO, NA, NE
HFC-365mfc	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA, NE	NO, NA, NE	NO, NA, NE
Unspecified mix of HFCs(4) - (kt CO ₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of PFCs - (kt CO₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
CF ₄	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₂ F ₆	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₃ F ₈	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₄ F ₁₀	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
c-C ₄ F ₈	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₅ F ₁₂	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₆ F ₁₄	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C10F18	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
c-C3F6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Unspecified mix of PFCs(4) - (kt CO ₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Unspecified mix of HFCs and PFCs - (kt CO₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of SF₆ - (kt CO₂ equivalent)	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.17	0.18	0.37
SF ₆	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.00	0.00	0.00
Emissions of NF₃ - (kt CO₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
NF ₃	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA

Note: All footnotes for this table are given on sheet 3.

Table 1(d)

LVA_BR2_v2.0

Emission trends (HFCs, PFCs and SF₆)

(Sheet 2 of 3)

<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Emissions of HFCs and PFCs - (kt CO₂ equivalent)	3.09	3.49	5.47	8.13	10.60	13.38	18.03	24.51	42.22	63.20
Emissions of HFCs - (kt CO₂ equivalent)	3.09	3.49	5.47	8.13	10.60	13.38	18.03	24.51	42.22	63.20
HFC-23	0.00	0.00	0.00	0.00	0.00	0.00	NO, NA, NE, IE	NO, NA, IE	NO, NA, IE	NO, NA, IE
HFC-32	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	0.00	0.00	0.00	0.00
HFC-41	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-43-10mee	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-125	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.00	0.00	0.00	0.00
HFC-134	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-134a	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.03	0.03
HFC-143	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-143a	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.00	0.00	0.00	0.00
HFC-152	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-152a	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.00	0.00
HFC-161	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-227ea	NO, NA, NE	NO, NA, NE	NO, NA, NE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-236cb	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-236ea	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-236fa	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-245ca	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
HFC-245fa	NO, NA, NE	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	NE, NA, NO	0.00	NO, NA	NO, NA	NO, NA
HFC-365mfc	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE	NO, NA, NE
Unspecified mix of HFCs(4) - (kt CO ₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of PFCs - (kt CO₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
CF ₄	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₂ F ₆	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₃ F ₈	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₄ F ₁₀	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
c-C ₄ F ₈	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₃ F ₁₂	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C ₆ F ₁₄	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
C10F18	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
c-C3F6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Unspecified mix of PFCs(4) - (kt CO ₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Unspecified mix of HFCs and PFCs - (kt CO₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
Emissions of SF₆ - (kt CO₂ equivalent)	0.52	0.71	0.88	1.39	2.62	2.76	3.25	3.78	4.07	4.55
SF ₆	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions of NF₃ - (kt CO₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA
NF ₃	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA

Note: All footnotes for this table are given on sheet 3.

Table 1(d)

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Emission trends (HFCs, PFCs and SF₆)
(Sheet 3 of 3)

	2008	2009	2010	2011	2012	2013	Change from base to latest reported year
<i>GREENHOUSE GAS SOURCE AND SINK CATEGORIES</i>							%
Emissions of HFCs and PFCs - (kt CO₂ equivalent)	79.57	83.14	79.68	82.11	90.96	108.46	
Emissions of HFCs - (kt CO₂ equivalent)	79.57	83.14	79.68	82.11	90.96	108.46	
HFC-23	0.00	0.00	0.00	0.00	0.00	0.00	
HFC-32	0.00	0.00	0.00	0.00	0.00	0.00	
HFC-41	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-43-10mee	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-125	0.00	0.00	0.00	0.00	0.00	0.00	0.01
HFC-134	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-134a	0.04	0.04	0.04	0.04	0.04	0.04	0.05
HFC-143	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-143a	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-152	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-152a	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-161	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-227ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HFC-236cb	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-236ea	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-236fa	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-245ca	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-245fa	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
HFC-365mfc	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unspecified mix of HFCs(4) - (kt CO ₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Emissions of PFCs - (kt CO₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
CF ₄	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
C ₂ F ₆	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
C ₃ F ₈	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
C ₄ F ₁₀	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
c-C ₄ F ₈	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
C ₅ F ₁₂	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
C ₆ F ₁₄	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
C10F18	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
c-C3F6	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Unspecified mix of PFCs(4) - (kt CO ₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Unspecified mix of HFCs and PFCs - (kt CO₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
Emissions of SF₆ - (kt CO₂ equivalent)	5.23	7.33	7.35	7.47	7.78	8.50	
SF ₆	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions of NF₃ - (kt CO₂ equivalent)	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	
NF ₃	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	

Abbreviations : CRF = common reporting format, LULUCF = land use, land-use change and forestry.

^a The column "Base year" should be filled in only by those Parties with economies in transition that use a base year different from 1990 in accordance with the relevant decisions of the Conference of the Parties. For these Parties, this different base year is used to calculate the percentage change in the final column of this table.

^b Enter actual emissions estimates. If only potential emissions estimates are available, these should be reported in this table and an indication for this be provided in the documentation box. Only in these rows are the emissions expressed as CO₂ equivalent emissions.

^d In accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories", HFC and PFC emissions should be reported for each relevant chemical. However, if it is not possible to report values for each chemical (i.e. mixtures, confidential data, lack of disaggregation), this row could be used for reporting aggregate figures for HFCs and PFCs, respectively. Note that the unit used for this row is kt of CO₂ equivalent and that appropriate notation keys should be entered in the cells for the individual chemicals.)

Custom Footnotes

Documentation Box:

Table 2(a)

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Description of quantified economy-wide emission reduction target: base year^a

<i>Party</i>	<i>Latvia</i>		
Base year /base period	1990		
Emission reduction target	% of base year/base period	% of 1990 ^b	
	20.00	20.00	
Period for reaching target	BY-2020		

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b Optional.

Description of quantified economy-wide emission reduction target: gases and sectors covered^a

<i>Gases covered</i>		<i>Base year for each gas (year):</i>	
CO ₂		1990	
CH ₄		1990	
N ₂ O		1990	
HFCs		1995	
PFCs		NA	
SF ₆		1995	
NF ₃		NA	
Other Gases (specify)			
Sectors covered ^b	Energy	Yes	
	Transport ^f	Yes	
	Industrial processes ^g	Yes	
	Agriculture	Yes	
	LULUCF	No	
	Waste	Yes	
	Other Sectors (specify)		
	Aviation in the scope of the EU-ETS	Yes	

Abbreviations : LULUCF = land use, land-use change and forestry.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b More than one selection will be allowed. If Parties use sectors other than those indicated above, the explanation of how these sectors relate to the sectors defined by the IPCC should be provided.

^f Transport is reported as a subsector of the energy sector.

^g Industrial processes refer to the industrial processes and solvent and other product use sectors.

Description of quantified economy-wide emission reduction target: global warming potential values (GWP)^a

<i>Gases</i>	<i>GWP values^b</i>
CO ₂	4th AR
CH ₄	4th AR
N ₂ O	4th AR
HFCs	4th AR
PFCs	4th AR
SF ₆	4th AR
NF ₃	4th AR
Other Gases (specify)	

Abbreviations : GWP = global warming potential

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b Please specify the reference for the GWP: Second Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) or the Fourth Assessment Report of the IPCC.

Description of quantified economy-wide emission reduction target: approach to counting emissions and removals from the LULUCF sector^a

Role of LULUCF	LULUCF in base year level and target	Excluded
	Contribution of LULUCF is calculated using	

Abbreviation : LULUCF = land use, land-use change and forestry.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

Description of quantified economy-wide emission reduction target: market-based mechanisms under the Convention^a

<i>Market-based mechanisms under the Convention</i>	<i>Possible scale of contributions (estimated kt CO₂ eq)</i>
CERs	NA
ERUs	NA
AAUs ⁱ	NA
Carry-over units ^j	NA
Other mechanism units under the Convention (specify) ^d	

Abbreviations : AAU = assigned amount unit, CER = certified emission reduction, ERU = emission reduction unit.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^d As indicated in paragraph 5(e) of the guidelines contained in annex I of decision 2/CP.17 .

ⁱ AAUs issued to or purchased by a Party.

^j Units carried over from the first to the second commitment periods of the Kyoto Protocol, as described in decision 13/CMP.1 and consistent with decision 1/CMP.8.

Description of quantified economy-wide emission reduction target: other market-based mechanisms^a

<i>Other market-based mechanisms (Specify)</i>	<i>Possible scale of contributions (estimated kt CO₂ eq)</i>

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

Description of quantified economy-wide emission reduction target: any other information^{a,b}

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^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b This information could include information on the domestic legal status of the target or the total assigned amount of emission units for the period for reaching a target. Some of this information is presented in the narrative part of the biennial report.

Custom Footnotes

Table 3

LVA_BR2_v2.0

Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects

Name of mitigation action ^a	Sector(s) affected ^b	GHG(s) affected	Objective and/or activity affected	Type of instrument ^c	Status of implementation ^d	Brief description ^e	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO ₂ eq)		
									2015	2020	2025
Investment Support Programme for District Heating (DH) Systems: 2007-2013 EU Funds programming period*	Energy	CO ₂	Effective use of fuel in the DH systems, reducing energy loss and emissions, increasing the share of RES (both for heat and CHP production)	Economic	Implemented	Increasing the efficiency of heat supply production, reducing the loss of heat energy in the DH transmission & distribution systems and fostering the replacement of imported fossil fuels with RES, including the increase of the CHP production utilising the RES. In financial programming period of 2007-2013 the support was provided by the Cohesion Fund in the frame of National operational programme "Infrastructure and services", part „Energy” (activities No3521&3522).	2010	Ministry of Economy	390	390	390
Energy Efficiency Requirements for District Heating Systems *	Energy	CO ₂	More effective use of fuel in the DH system, reducing energy loss and emissions	Regulatory	Implemented	The Governmental Regulations No 1214 (2009) had defined the mandatory minimum energy efficiency for new and reconstructed DH networks put into operation after 01.01.2010. The minimum requirements were stated: 1) efficiency of heat production boilers - 92% (gaseous), 85% (liquid), 75% (solid), 2) efficiency of CHP units - 80% (gaseous & liquid), 75% (solid), 3) annual maximum heat loss in DH pipeline network - 22%.	2010	Ministry of Economy	IE PM1	IE PM1	IE PM1
Investment Support in Industrial Buildings' and Technologies' Energy Efficiency to Reduce GHG emissions*	Industry/industrial processes	CO ₂	Reduction of CO ₂ emissions in industrial/business sector entities	Economic	Implemented	Receipts from the sale of GHG emissions (pursuant to Art.17 of UNFCC Kyoto protocol) were earmarked as national Climate Change Financial Instrument (CCFI). Part of them were allocated for CO ₂ emissions reduction in industrial/business sector entities. Eligible investments included energy efficiency investments of different kind both in buildings and technological equipment; installation of efficient lightning; heat supply switch from fossils to RES & installation of RES based heat supply system (up to 3 MW). Commercial sector entities, which corresponds to certain NACE codes, may apply as well.	2010	Ministry of Environment and Regional Development	38	38	38
Investment Support Programme in Renewable Technologies for Heat and Electricity Production to Reduce GHG emissions *	Energy	CO ₂	Reduction of CO ₂ emission by installation of RES technologies for both heat, power and CHP production,	Economic	Implemented	The support was available from the receipts of the sale of GHG emissions (national Climate Change Financial Instrument). The eligible beneficiaries were both business sector entities and public sector institutions	2010	Ministry of Environment and Regional Development	105	105	105

Table 3

LVA_BR2_v2.0

Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects

Name of mitigation action ^a	Sector(s) affected ^b	GHG(s) affected	Objective and/or activity affected	Type of instrument ^c	Status of implementation ^d	Brief description ^e	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO ₂ eq)		
									2015	2020	2025
Investment Support to Produce Energy from Biomass of Agriculture and Forestry Origin: 2007-2013 EU Funds programming period*	Energy	CO ₂ , CH ₄	Reduction of GHG emissions by electricity production in CHP mode by utilising biogas fermented in anaerobic processes from biomass of an agricultural origin.	Economic	Implemented	In financial period of 2007-2013 the support was provided by national Rural Development Programme within the sub-measure 312/311(3) for the agriculture sector business entities & service cooperatives to develop the production of electricity and heat in CHP mode by utilising biogas fermented in anaerobic processes from biomass of an agricultural or forestry origin.	2010	Ministry of Agriculture	69.3	69.3	69.3
Investment Support to Produce Energy from Biomass of Agriculture Origin: 2014-2020 EU Funds programming period	Energy	CO ₂ , CH ₄	Reduction of GHG emissions by electricity production in CHP mode by utilising biogas fermented in anaerobic processes from biomass of an agricultural origin.	Economic	Planned	In financial programming period of 2014-2020 the support is provided by national Rural Development Programme within the framework of the Measure 06 "Farm and business development by supporting the non-agriculture activity", Priority 5C, to develop the production of electricity and heat in CHP mode by utilising biogas fermented in anaerobic processes from biomass of an agricultural origin.	2016	Ministry of Agriculture	0	10	12
Investment Support Programmes to Increase Energy Efficiency in Apartment Buildings: 2007-2013 EU Funds Programming Period*	Energy	CO ₂	More efficient use of final energy, reducing energy losses and emissions by involving end-users to increase energy performance of buildings.	Economic	Implemented	In financial period of 2007-2013 the investments in energy efficient building renovation were co-financed from the EU Regional Development Fund under the Latvia national operational programme "Infrastructure and Services", activity No.344 "Energy Efficiency in Housing". The measure had 2 target audiences: 1) apartments owners of multi-apartment residential buildings, and 2) tenants of municipal social residential buildings.	2008	Ministry of Economy	43	43	43
Energy Performance of Buildings*	Energy	CO ₂	Reducing final energy and emissions in buildings by increasing energy efficiency and public informing	Regulatory	Implemented	The recasted Law on the Energy Performance of Buildings (adopted Dec 2012) recast the general legal framework of setting the mandatory minimum energy performance requirements for buildings, the general principles of mandatory energy efficiency certification for buildings, verification of buildings heating and ventilation systems. The energy efficiency classification system for buildings are introduced by Governmental Regulations. general legal framework of setting the mandatory minimum energy performance requirements for buildings, the general principles of mandatory energy efficiency certification	2013	Ministry of Economy	NE	NE	NE

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									2015	2020	2025
Agreements on Energy Efficiency, promoting energy audits and energy management systems in industrial enterprises*	Energy	CO ₂	Raising energy efficiency in industry sector (in industrial buildings and technologies)	Voluntary Agreement	Implemented	The objective of the particular agreement is to achieve in the company the energy saving of at least 10%	2011	Ministry of Economy	IE PAM 3	IE PAM 3	IE PAM 3
Energy Audits of Residential Multi-apartment buildings*	Energy	CO ₂	More efficient use of final energy, reducing energy loss and emissions by providing recommendations for increasing energy efficiency	Information	Implemented	In 2009-2010 the government provided the financial support to realise energy audit and prepare the documentation necessary for building renovation projects. Afterwards the financial support is provided by a number of municipalities. Within the framework of eligible costs provided for renovation works by ERDF (see previous Policy 9), the financing is provided also for energy audit and preparation of construction works' technical documentation as the first stage of renovation project.	2009	Ministry of Economy	NE	NE	NE
Informing Energy Consumers of Residential Sector (Multi-apartment buildings)*	Energy	CO ₂	To inform final energy consumers of the energy efficiency measures and their economic benefits.	Information	Implemented	The measure (i) motivates flats' owners to renovate them in the frame of the ERDF supported activity of Increasing energy efficiency in multi-apartment buildings (the Policy 9 above), (ii) informs and consults buildings' management companies and societies of the flats' owners regarding conditions and benefits of the Policy 9, (iii) encourages building companies, building materials producers and traders to take initiatives regarding renovation of multi-apartment buildings, (iv) raises understanding on energy efficiency and thus promotes to reduce heat energy consumption. The measure will be continued in 2014-2020 EU Funds programming period as well.	2010	Ministry of Economy	NE	NE	NE

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									2015	2020	2025
Financial Support (Grants) for Renewable Energy Technologies in Households*	Energy	CO ₂	CO2 emissions reduction by implementing RES based heat and electricity micro-generation technologies in households	Economic	Implemented	The financial support (particular programme of national Climate Change Financial Instrument) was available from the revenues of the sale of GHG emissions (under procedures pursuant to Art. 17 of UNFCCC Kyoto protocol). Eligible micro-generation technologies were: solar heat collectors (up to 25 kW), solar electricity (up to 10 kW), wind (up to 10 kW), wood, wood chips, wood pellets and straw technologies (up to 50 kW), heat pumps (up to 50 kW) as well as combined use of above technologies. Both existing houses and new buildings registered under construction were eligible. The support for 1 project might be up to 9960 EUR.	2011	Ministry of Environment and Regional Development	15	15	15
Investment Support Programmes in Public Sector Energy Efficiency*	Energy	CO ₂	Reduction of CO2 emissions in public (municipal and state) sector	Economic	Implemented	The financial support (particular programmes of national Climate Change Financial Instrument) was available from the revenues of the sale of GHG emissions (under procedure pursuant to Art.17 of UNFCCC Kyoto protocol). The support was available to improve heating and lightning energy efficiency as well as to realize fuel switch to RES in the public buildings	2010	Ministry of Environment and Regional Development	54	54	54
Promotion Public Understanding on the Importance and Possibilities of GHG Emissions Reduction*	Cross-cutting	CO ₂	Promotion Public Understanding on the Importance and Possibilities of GHG Emissions Reduction	Information	Implemented	Years 2010-2013. The financial support (particular programme of national Climate Change Financial Instrument) was provided from the revenues of the sale of GHG emissions (under procedures pursuant to Art.17 of UNFCCC Kyoto protocol). The support was available for publications in mass media for both general and targeted audiences, thematic broadcasts, organisation of thematic workshops and trainings for targeted audience groups, educational projects. Years 2015-2016. The measure is supported by the programme "National Climate Policy" of the EEA Financial Mechanism for years 2009-2014. The following activities are supported: education/training programmes for different audiences, information campaigns and public actions in mass media, websites, radio, TV.	2011	Ministry of Environment Protection and Regional Development	NE	NE	NE

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									2015	2020	2025
Energy Labelling on Household Appliances*	Energy	CO ₂	Reducing energy consumption and emissions in households	Regulatory	Implemented	The current mandatory energy labelling for household electrical appliances is established by the set of relevant EC Delegated Regulations (The Governmental Regulations on labelling for the first time in Latvia had been issued in 2001. The mandatory energy labelling, corresponding to the requirements of EC Directives, was established in Latvia by the set of Governmental Regulations in 2004 when Latvia had joined EU). The requirements relating to the publication of information / labelling on the consumption of energy by household appliances allow consumers to choose appliances on the basis of their energy efficiency.	2002	Ministry of Economy	NE	NE	NE
Biofuel Mix Obligation Requirement*	Transport	CO ₂	Increasing the share of RES in the fuel balance of transport sector	Regulatory	Implemented	In 01.10.2009 Latvia had introduced the Biofuel Mix Obligation Requirement (Governmental Regulations No.648, 25.06.2009, Art. 8.1&9.1). 4.5-5% (volume) bioethanol mix is mandatory for the gasoline of "95" trademark. 4.5-5% (volume) biodiesel mix is mandatory for the diesel fuel, including diesels of A-F categories, utilised in moderate climate conditions, exemption is made for diesels of 0-4 classes utilised in case of arctic/winter climate conditions..	2010	Ministry of Economy	81	81	81
Excise Tax – Transport sector*	Transport	CO ₂	To provide economic incentives regarding effective use of transport fuel and use of RES fuel in transport, thus reducing emissions	Fiscal	Implemented	"The procedure is established by the Law ""On Excise Duties"". The Art.14 determines the rates of duty for mineral oils and their substitutes. Regarding transport sector the reduced tax rates currently are applied for produced in Latvia or imported from EU member states: (1) gasoline with 70-85% (volume) of ethanol produced from agriculture origin raw materials, and (2) pure biodiesel is exempted from taxation. The Amendments, adopted 17 December 2014, had cancelled the reduced tax rate for the diesel (gas oil) with at least 30% (volume) mix. The reduced tax rate is applied for certain amount of diesel which is used for agriculture sector land cultivation and production purposes. Starting from 2010, the amendments of the Law have introduced the excise tax also for natural gas used in transport sector. "	1993	Ministry of Economy, Ministry of Finance	NE	NE	NE

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									2015	2020	2025
Applying of differential tax rates for transport vehicles depending on age and engine size or on CO2 emission factor*	Transport	CO ₂	To foster the economic advantages of vehicles with a smaller engine size and less fuel consumption, thus reducing emissions	Fiscal	Implemented	The measure is aimed at structural changes of the car fleet, which will foster a reduction in fuel consumption and the number of kilometres driven. In addition, the measure will foster a reduction in the average age of vehicles, which will also have a positive impact on the efficient use of energy. The actual legal system is established by 2 laws: (1) the law "On the Vehicle Operation Tax and Company Car Tax" determines annual taxation system for cars, (2) "The Law On Car and Motorcycle Tax" determines the taxation procedure for the car's first time registration in Latvia; the amendments of this law introduced a new taxation approach depending on CO2 emission factor per km for the new cars, previously non-registered or have been registered abroad after 01.01.2009	2007	Ministry of Transport, Ministry of Finance	41	41	41
New Passenger Cars Labelling on Fuel Economy Rating*	Transport	CO ₂	To motivate car owners to choose fuel consumption and CO2 emissions efficient car	Information	Implemented	The labelling of cars regarding fuel consumption (litres per 100 km or km per litre) and CO2 emissions (grams per km)	2003	Ministry of Economy, Ministry of Transport	56	56	56
Taxation of Electricity*	Energy	CO ₂	To provide economic incentives for rational use of electricity	Fiscal	Implemented	The procedure is prescribed by the Electricity Tax Law. Tax shall apply to entities who are engaged in the generation, distribution, supply, selling of electricity as well as purchasing electricity in electricity spot exchange. The exemptions are made 1) for the electricity obtained (i) from renewable energy sources, (ii) in hydro power stations, (iii) in CHP stations complying with the efficiency criteria specified in the regulatory enactments; 2) for the electricity used for: (i) electricity generation, (ii) the generation of heat energy and electricity in CHP mode, (iii) the carriage of goods and public carriage of passengers, including rail transport and public transport in towns, (iv) household users, (v) street lighting services. 3) for autonomous producers if they correspond to certain criteria.	2007	Ministry of Economy, Ministry of Finance	NE	NE	NE

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									2015	2020	2025
Taxation of CO2 emissions *	Energy	CO ₂	To provide economic incentives to reduce CO2 emissions	Fiscal	Implemented	The procedure is prescribed by the Natural Resources Tax Law. The subject of CO2 taxation is CO2 emitting activities (installations) requiring a GHG emission permit - if the amount of the activity (installation) is below the limit defined for inclusion in EU ETS. The tax shall not be paid (Article 10) (i) for the CO2 emissions which emerges from the installations participating in the EU ETS, and (ii) while using renewable energy sources and peat. The tax rate per 1 ton of CO2 emission is gradually raised up from the starting rate 0.142 EUR up to 3.50 EUR (from 01.01.2015).	2005	Ministry of Economy, Ministry of Finance	NE	NE	NE
Taxation on Noxious Air Polluting Emissions *	Energy	CO ₂	To provide economic incentives to reduce noxious air emissions, thus providing synergy with CO2 reduction, by the use of more energy efficient and less polluting technologies	Fiscal	Implemented	The procedure is prescribed by the Natural Resources Tax Law. The emissions of PM10, CO, SO2, NOx, NH3, H2S and other non-organic compounds, CnHm, VOC, metals (Cd, Ni, Sn, Hg, Pb, Zn, Cr, As, Se, Cu) and their compounds, V2O5 are taxable. Improvement of combustion processes as the technical measure to control noxious emissions results in reducing fuel consumption as well thus creating synergy with GHG emissions emerging in both ETS and non-ETS sectors.	1991	Ministry of Economy, Ministry of Finance	NE	NE	NE
Systematic inspection of the technical conditions*	Transport	CO ₂	To provide exploitation of transport vehicles in accordance with the technical requirements of the manufacturer thus reaching improvements in fuel consumption and reducing emissions	Regulatory	Implemented	Mandatory annual technical inspections of motor vehicles ensure that only those vehicles that comply with technical and environmental requirements are being allowed to take part in road transport	1996	Ministry of Transport, Road Traffic Safety Directorate	NE	NE	NE

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									2015	2020	2025
Development of public transport network*	Transport	CO ₂	To decrease total fuel consumption by further development and optimisation of public transport network	Economic	Implemented	The given measure envisages the improvement of the system of public transport network; revision of the public transport subsidising system (to avoid simultaneous subsidising of parallel functioning regional and intercity buses and railway routes), harmonisation of traffic schedules; etc. Significant investments for environmentally friendly public transport, including trams and buses, infrastructure development is allocated for 2014-2020 EU Funds planning period (national Operational Programme "Growth and Employment", investment priority No4.5)	2011	Ministry of Transport	NE	NE	NE
Performance of Heat Generators for Space Heating and the Production of Hot Water*	Energy	CO ₂	Reducing energy and emissions by prescribing essential requirements for heat boilers	Regulatory	Implemented	In 26 September 2013 the Commission Regulation (EU) No 813/2013 of 2 August 2013 had come into force. Latvia has used the transition period. Namely, up to 26 September 2015 the Latvia Governmental Regulations on Hot-Water Boilers are in force. These Regulations prescribe the essential energy efficiency requirements for water heating boilers, fuelled by gaseous or solid fuels with nominal heat capacity in the range of 4-400 kW and used for heat supply	2004	Ministry of Economy	NE	NE	NE
Preferential Feed-in Tariffs for Renewables*	Energy	CO ₂	Increasing RES utilization in the electricity supply	Economic	Implemented	Application of RES feed-in tariffs in dependence of RES type and unit capacity. In the period 26 May 2011 - 01 January 2016, according Governmental Regulations, new RES electricity producers may not receive rights for selling electricity within the scope of mandatory procurement.	1996	Ministry of Economy	IE PM1&PM5	IE PM1&PM5	IE PM1&PM5
Preferential Feed-in Tariffs for Combined Heat-Power Production*	Energy	CO ₂	Increasing CHP production in the electricity supply	Economic	Implemented	Application of CHP feed-in tariffs in dependence of fuel type and unit capacity. In the period 10 September 2012 - 01 January 2016, according Governmental Regulations, new CHP producers may not receive rights for selling electricity within the scope of mandatory procurement.	1996	Ministry of Economy	IE PM1&PM5	IE PM1&PM5	IE PM1&PM5

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									2015	2020	2025
Energy Certification of Buildings*	Energy	CO ₂	More efficient use of final energy, reducing energy loss and emissions by implementing buildings' certification for increasing energy efficiency	Regulatory	Adopted	The Governmental Regulations No.383 "On Energy Certification of Buildings" (adopted 09 July 2013) introduce six (A-F) energy efficiency classes for residential buildings and five classes (A-E) for non-residential buildings	2013	Ministry of Economy	NE	NE	NE
Increased minimum thermal insulation standards of buildings*	Energy	CO ₂	More efficient use of final energy, reducing energy loss and emissions by implementing thermal insulation standards during construction process	Regulatory	Implemented	The actual (2014) version of Latvian Construction Standard LBN002-01 "Thermotechnics of Building Envelopes" introduce increased standards for heat transmittance coefficients for the construction elements	2014	Ministry of Economy	NE	NE	NE
Investment Support Programme for District Heating (DH) Systems: 2014-2020 EU Funds programming period	Energy	CO ₂	Effective use of fuel in the DH systems, reducing energy loss and emissions, increasing the share of RES for heat production	Economic	Planned	"The increasing efficiency and RES share in DH supply systems is supported within the framework of the new National Operational Programme "Growth and Employment", Thematic Objective No4 "Supporting the shift towards a low-carbon economy in all sectors", Specific Objective 4.3.1. "To promote energy efficiency and use of local RES in the district heating supply". Indicative activities to be supported:(i) reconstruction for increase of energy efficiency of heat production sources and use of RES, (ii) reconstruction and construction of district heat transmission and distribution systems aimed at reducing heat losses. "	2016	Ministry of Economy	0	67	71.5

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									2015	2020	2025
Investment Support in Manufacturing Industry sector to promote energy efficiency and RES use	Industry/industrial processes	CO ₂	Efficient use of energy resources, reduction of energy consumption and transfer to RES in manufacturing industry	Economic	Planned	"Development of new, innovative energy-saving technology, measures increasing energy efficiency and share of RES is supported within the framework of the new national Operational Programme "Growth and Employment", Thematic Objective No4 "Supporting the shift towards a low-carbon economy in all sectors", the Specific Objective 4.1.1. Indicative activities to be supported: (i) measures for the improvement of energy efficiency of buildings of manufacturing industry enterprises, (ii) energy certification of buildings, (iii) acquisition and installation of new and efficient thermal (heat) energy, electricity producing and water boiler production equipment using RES."	2016	Ministry of Economy	0	14	17
Investment Support to Improve Energy Efficiency in Food Processing Enterprises	Industry/industrial processes	CO ₂	improvement of energy efficiency of food processing enterprises and agriculture sector in general	Economic	Planned	The financial support is provided within the framework of the Measure 04 "Investments" of the national Rural Development Programme , under the priority 5B (other investments may bring energy efficiency improvements indirectly as well).	2016	Ministry of Agriculture	NE	NE	NE
Investment Support Programme to Increase Energy Efficiency in Apartment Buildings: 2014-2020 EU Funds programming period	Energy	CO ₂	More efficient use of final energy, reducing energy loss and emissions by involving end-users to increase energy performance of buildings	Economic	Planned	Increasing of energy efficiency in multi-apartment buildings is supported within the framework of the national Operational Programme "Growth and Employment": Thematic Objective No4 "Supporting the shift towards a low-carbon economy in all sectors", Specific Objective 4.2.1. "To increase energy efficiency in public and residential buildings". The financial assistance will be provided in the following forms of subsidy (grant), repayable loan with low interest rate, guarantee for the loan. Subsidy will apply if the certain required energy efficiency level after renovation works will be reached.	2016	Ministry of Economy	0	22	26

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									2015	2020	2025
Investment Support Programme to Increase Energy Efficiency in Public (State Central Government) Buildings: 2014-2020 EU Funds programming period	Energy	CO ₂	More efficient use of final energy, reducing energy loss and emissions by increasing energy performance of buildings	Economic	Planned	"Increasing of energy efficiency in state (central government) public buildings is supported within the framework of the national Operational Programme "Growth and Employment": Thematic Objective No4 "Supporting the shift towards a low-carbon economy in all sectors", Specific Objective 4.2.1. "To increase energy efficiency in public and residential buildings". Positive financial return of investments is the most important criterion for support. "	2016	Ministry of Economy	0	14	14
Investment Support Programme to Increase Energy Efficiency in Municipal Buildings: EU Funds Programming Period of 2014-2020	Energy	CO ₂	More efficient use of final energy, reducing energy loss and emissions by increasing energy performance of buildings	Economic	Planned	"Increasing of energy efficiency in public buildings of municipalities is supported within the framework of the national Operational Programme "Growth and Employment", Thematic Objective No4 "Supporting the shift towards a low-carbon economy in all sectors", the Specific Objective 4.2.2. "To facilitate the increase of energy efficiency in municipal buildings, according to the integrated development programme of the municipality". "	2016	Ministry of Economy	NE	NE	NE
Investments in Biomass Technologies for Heat Production to Reduce GHG Emissions	Energy	CO ₂	Contribute to achieving the Latvian climate goals for 2020 and 2030, by implementation of activities in the non-ETS sector - replace the existing fossil fuels with renewable energy resources.	Economic	Planned	Latvia has revenues from the auctioning of Latvia's allocated EU ETS GHG emission quotas, these revenues form the national Emissions Quotas Auctioning Financial Instrument will provide co-financing for the described particular measure. The measure will intend to provide financial support for the transition from fossil energy sources based to biomass-based heat producing technologies, which will result in CO2 emissions reduction.	2016	Ministry of Environment Protection and Regional Development	0	15	15

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									2015	2020	2025
Electromobility Development	Transport	CO ₂	CO2 reduction by use of electric vehicles	Economic	Planned	Year 2014. The financial support (particular programme of national Climate Change Financial Instrument) was provided from the revenues of the sale of GHG emissions (under procedures pursuant to Art.17 of UNFCCC Kyoto protocol). The support was available for purchase of electric vehicles and installation of public charging points. Years 2015-2022. Development of electric vehicles charging infrastructure is supported within the framework of the new national Operational Programme "Growth and Employment", Thematic Objective No4 "Supporting the shift towards a low-carbon economy in all sectors", Investment Priority 4.4. „To promote low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures", the Specific Objective 4.4.1. "To develop EV charging infrastructure in Latvia" corresponding to this Investment priority. Thus creation of electric vehicles charging network as crucial precondition for electromobility development will be reached.	2016	Ministry of Environment Protection and Regional Development	NE	NE	NE
Implementation of the EU Emissions Trading Scheme*	Energy, Industry/industrial processes	CO ₂	Reduction of CO2 emissions emitted by EU ETS operators	Regulatory	Implemented	Limitation of amount of emission quota allocated for ETS operators	2005	Ministry of Environment Protection and Regional Development	NE	NE	NE
Latvia National Renewable Action Plan	Energy	CO ₂	Target is to increase the use of RES from 32.6% of gross final energy consumption (GFEC) in 2005 up to 40% in 2020, and to increase it gradually thereafter	Regulatory	Planned	Latvia's Renewable Energy Action Plan sets the following sub-targets regarding the share of renewable energy in 2020, this share must reach (i) in the transport sector - at least 10% of GFEC, (ii) in the electricity sector – at least 59.8% of GFEC, (iii) in the heating and cooling sector – 53.4% of GFEC.	2010	Ministry of Economy	163	192	192

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									2015	2020	2025
Organic farming	Agriculture	N ₂ O	Expanding organic farming area for reduction of fertilizer/manure use on cropland and support other activities improving cropland management	Economic	Planned	Farming methods with environmentally friendly influence on nature, reduction of synthetic nitrate use and leaching, increased biodiversity. The state support for organic farmers through subsidies.	2016	Ministry of Agriculture	0	193	213
Precision agriculture technologies	Agriculture	N ₂ O, CH ₄	Reduction of GHG emissions	Voluntary Agreement	Planned	Reduction of N ₂ O emissions	2016	Ministry of Agriculture	NE	NE	NE
Precision livestock feeding strategies	Agriculture	CH ₄ , N ₂ O	Improved livestock management	Voluntary Agreement	Planned	reduction of GHG emissions	2016	Ministry of Agriculture	NE	NE	NE
"Introduction of leguminous plants on arable land"	Agriculture	N ₂ O	"improving cropland management by increasing 5% leguminous plants in arable land structure"	Voluntary Agreement	Planned	Support to use of legumes as green manure and fodder in crop rotation	2016	Ministry of Agriculture	NE	NE	NE
Management of nitrate vulnerable territories*	Agriculture	N ₂ O	Reduction of fertilizer/manure use on cropland	Regulatory	Implemented	"Restriction for nitrogen usage, reduction of nitrogen leaching. Water protection against pollution caused by nitrates from agricultural sources. Rules for management of vulnerable zones"	2014	Ministry of Agriculture	NE	NE	NE
Requirements for the protection of soil and water from agricultural pollution caused by nitrates*	Agriculture	N ₂ O	Regulations for N fertilizer and manure usage.	Regulatory	Implemented	Restriction for nitrogen usage, reduction of nitrogen leaching. The limit of 170 kg nitrogen from manure and digesters per hectare, limits for other fertilizers use.Reduction of nondirect N ₂ O emissions	2014	Ministry of Agriculture	NE	NE	NE
Crop fertilization plans*	Agriculture	N ₂ O	Providing calculations of N content of manure, determining N requirements for a certain crop upon planning the expected yield	Regulatory	Implemented	"If managed land is over 20 ha at vulnerable territories farms prepare crop fertilization plans. Providing calculations of N content of manure, determining N requirements for a certain crop upon planning the expected yield."	2012	Ministry of Agriculture	NE	NE	NE
"Requirements for manure storage and spreading"*	Agriculture	CH ₄ , N ₂ O	Requirements for storing of manure to improve animal waste management systems	Regulatory	Implemented	Specify the requirements for storing of manure outside animal shed Requirements refer to farms with more than 10 AU (animal units), and 5 AU in vulnerable territories.	2014	Ministry of Agriculture	NE	NE	NE

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									2015	2020	2025
Integrated farming*	Agriculture	N ₂ O	to improve cropland management and reduction of agriculture pollution	Voluntary Agreement	Adopted	"The growing of agricultural products utilising environmentally friendly measures, preserving biological diversity and reducing risks to human health and the environment, at the same time ensuring plant protection, animal health and welfare measures."	2014	Ministry of Agriculture	NE	NE	NE
Cropland drainage	Agriculture	CO ₂	improving of cropland management	Economic	Planned	Restoration of malfunctioning drainage systems in cropland	2016	Ministry of Agriculture	0	6	6
Production of legumes	Agriculture	CO ₂	to improve management of organic soils	Economic	Planned	Support to use of legumes as green manure and fodder in crop rotation	2016	Ministry of Agriculture	NE	NE	NE
"Reducing of biodegradable waste landfilling"*	Waste management/waste	CH ₄	Reduce amount of landfilled biodegradable wastes	Regulatory	Implemented	"Decreasing of the maximum amount of biologically degradable municipal wastes deposited on landfills according to the Landfill Directive 99/31/EC. Till 2020 reduce biodegradable waste disposing till 35% of 1995 biodegradable waste amount."	2006	Ministry of Environment Protection and Regional Development	46	92	92
Municipal waste recycling*	Waste management/waste	CH ₄	Enhance recycling	Regulatory	Implemented	Increase waste recycling to reach recycling share 50% till 2020	2012	Ministry of Environment Protection and Regional Development	NE	NE	NE
Regulations on emissions of pollutants into the aquatic environment*	Waste management/waste	CH ₄	To provide compliant treatment of urban waste water in agglomerations larger than 2000 p.e.	Regulatory	Implemented	Current national law is taking into account EC Directive on Urban Waste Water Treatment, aimed to protect surface waters from organic pollution and requiring to provide proper treatment of urban waste water from settlements large enough (i.e. agglomerations) to be source of significant pollution.	2002	Ministry of Environment Protection and Regional Development	NE	NE	NE
Reduce emissions of fluorinated greenhouse gases*	Industry/industrial processes	HFCs, PFCs	Reduction of emissions of fluorinated gases; Replacement of fluorinated gases by other substances	Regulatory	Implemented	Regulations for the containment, use, recovery and destruction of certain fluorinated greenhouse gases. These rules accompany the provisions relating to the labelling of products and equipment containing these gases, to the notification of information, to prohibitions on commercialisation, as well as to the training and certification of personnel and enterprises.	2006	Ministry of Environment Protection and Regional Development	NE	NE	NE

Table 3

LVA_BR2_v2.0

Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects

Name of mitigation action ^a	Sector(s) affected ^b	GHG(s) affected	Objective and/or activity affected	Type of instrument ^c	Status of implementation ^d	Brief description ^e	Start year of implementation	Implementing entity or entities	Estimate of mitigation impact (not cumulative, in kt CO ₂ eq)		
									2015	2020	2025
Reduce emissions of fluorinated greenhouse gases.*	Industry/industrial processes	HFCs, PFCs	Reduction of emissions of fluorinated gases; Replacement of fluorinated gases by other substances	Regulatory	Implemented	Prevent and minimise emissions of fluorinated greenhouse gases. Bans on the placing on the market, maintenance and service products and equipment containing HFCs with high GWPs.	2015	Ministry of Environment Protection and Regional Development	NE	NE	NE
Improve control of fugitive emissions from F gases consumption and phase out particular F gas used in Mobile air conditioning*	Industry/industrial processes	HFCs, PFCs	Reduction of emissions of fluorinated gases. Improved control of fugitive emissions from F gases consumption.	Regulatory	Implemented	"Regulation lay down the requirements for the EC type approval or national type-approval of vehicles as regards emissions from, and the safe functioning of, air-conditioning systems fitted to vehicles. Regulation contains provisions on retrofitting and refilling of such systems. These requirements are set according to objective of EU policy to reduce emissions of fluorinated greenhouse gases in the air-conditioning systems fitted to passenger cars and light commercial vehicles and prohibit from a certain date air-conditioning systems designed to contain F-gases with a global warming potential higher than 150."	2008	Ministry of Environment Protection and Regional Development	NE	NE	NE
LULUCF accounting (LULUCF Decision 529/2013/EU)*	Forestry/LULUCF	CO ₂	Robust accounting of LULUCF activities across Europe	Regulatory	Adopted	Provides the basis for a formal inclusion of the LULUCF sector and ensures a harmonized legal framework allowing the collection of reliable data by robust accounting and reporting in a standardised way.	2013	Ministry of Agriculture	NE	NE	NE

Note : The two final columns specify the year identified by the Party for estimating impacts (based on the status of the measure and whether an ex post or ex ante estimation is available).

Abbreviations : GHG = greenhouse gas; LULUCF = land use, land-use change and forestry.

^a Parties should use an asterisk (*) to indicate that a mitigation action is included in the 'with measures' projection.

^b To the extent possible, the following sectors should be used: energy, transport, industry/industrial processes, agriculture, forestry/LULUCF, waste management/waste, other sectors, cross-cutting, as appropriate.

^c To the extent possible, the following types of instrument should be used: economic, fiscal, voluntary agreement, regulatory, information, education, research, other.

^d To the extent possible, the following descriptive terms should be used to report on the status of implementation: implemented, adopted, planned.

^e Additional information may be provided on the cost of the mitigation actions and the relevant timescale.

^f Optional year or years deemed relevant by the Party.

Custom Footnotes

Table 4

LVA_BR2_v2.0

Reporting on progress^{a, b}

Year ^c	Total emissions excluding LULUCF	Contribution from LULUCF ^d	Quantity of units from market based mechanisms under the Convention		Quantity of units from other market based mechanisms	
	(kt CO ₂ eq)	(kt CO ₂ eq)	(number of units)	(kt CO ₂ eq)	(number of units)	(kt CO ₂ eq)
(1990)	26,326.48		NA		NO	
2010	12,011.12		NA		NO	
2011	11,244.09		NA		NO	
2012	11,078.53		NA		NO	
2013	11,025.43		NA, NO		NO	
2014	NA		NO, NA		NO	

Abbreviation : GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b For the base year, information reported on the emission reduction target shall include the following: (a) total GHG emissions, excluding emissions and removals from the LULUCF sector; (b) emissions and/or removals from the LULUCF sector based on the accounting approach applied taking into consideration any relevant decisions of the Conference of the Parties and the activities and/or land that will be accounted for; (c) total GHG emissions, including emissions and removals from the LULUCF sector. For each reported year, information reported on progress made towards the emission reduction targets shall include, in addition to the information noted in paragraphs 9(a–c) of the UNFCCC biennial reporting guidelines for developed country Parties, information on the use of units from market-based mechanisms.

^c Parties may add additional rows for years other than those specified below.

^d Information in this column should be consistent with the information reported in table 4(a)I or 4(a)II, as appropriate. The Parties for which all relevant information on the LULUCF contribution is reported in table 1 of this common tabular format can refer to table 1.

Custom Footnotes

Total GHG emissions (with indirect), including domestic and international aviation, but excluding LULUCF, as reported to the UNFCCC in 2015. Thus no data for 2014 is available.

Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2013 ^{a,b}

	<i>Net GHG emissions/removals from LULUCF categories</i> ^c	<i>Base year/period or reference level value</i> ^d	<i>Contribution from LULUCF for reported year</i>	<i>Cumulative contribution from LULUCF</i> ^e	<i>Accounting approach</i> ^f
	<i>(kt CO₂ eq)</i>				
Total LULUCF					
A. Forest land					
1. Forest land remaining forest land					
2. Land converted to forest land					
3. Other ^g					
B. Cropland					
1. Cropland remaining cropland					
2. Land converted to cropland					
3. Other ^g					
C. Grassland					
1. Grassland remaining grassland					
2. Land converted to grassland					
3. Other ^g					
D. Wetlands					
1. Wetland remaining wetland					
2. Land converted to wetland					
3. Other ^g					
E. Settlements					
1. Settlements remaining settlements					
2. Land converted to settlements					
3. Other ^g					
F. Other land					
1. Other land remaining other land					
2. Land converted to other land					
3. Other ^g					
Harvested wood products					

Abbreviations : GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b Parties that use the LULUCF approach that is based on table 1 do not need to complete this table, but should indicate the approach in table 2. Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^c For each category, enter the net emissions or removals reported in the most recent inventory submission for the corresponding inventory year. If a category differs from that used for the reporting under the Convention or its Kyoto Protocol, explain in the biennial report how the value was derived.

^d Enter one reference level or base year/period value for each category. Explain in the biennial report how these values have been calculated.

^e If applicable to the accounting approach chosen. Explain in this biennial report to which years or period the cumulative contribution refers to.

^f Label each accounting approach and indicate where additional information is provided within this biennial report explaining how it was implemented, including all relevant accounting parameters (i.e. natural disturbances, caps).

^g Specify what was used for the category "other". Explain in this biennial report how each was defined and how it relates to the categories used for reporting under the Convention or its Kyoto Protocol.

Custom Footnotes

Numbers for LULUCF are not reported because this sector is not included under the Convention target

Progress in achieving the quantified economy-wide emission reduction targets – further information on mitigation actions relevant to the contribution of the land use, land-use change and forestry sector in 2014 ^{a, b}

	<i>Net GHG emissions/removals from LULUCF categories</i> ^c	<i>Base year/period or reference level value</i> ^d	<i>Contribution from LULUCF for reported year</i>	<i>Cumulative contribution from LULUCF</i> ^e	<i>Accounting approach</i> ^f
	<i>(kt CO₂ eq)</i>				
Total LULUCF					
A. Forest land					
1. Forest land remaining forest land					
2. Land converted to forest land					
3. Other ^g					
B. Cropland					
1. Cropland remaining cropland					
2. Land converted to cropland					
3. Other ^g					
C. Grassland					
1. Grassland remaining grassland					
2. Land converted to grassland					
3. Other ^g					
D. Wetlands					
1. Wetland remaining wetland					
2. Land converted to wetland					
3. Other ^g					
E. Settlements					
1. Settlements remaining settlements					
2. Land converted to settlements					
3. Other ^g					
F. Other land					
1. Other land remaining other land					
2. Land converted to other land					
3. Other ^g					
Harvested wood products					

Abbreviations : GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a Reporting by a developed country Party on the information specified in the common tabular format does not prejudice the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

^b Parties that use the LULUCF approach that is based on table 1 do not need to complete this table, but should indicate the approach in table 2. Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^c For each category, enter the net emissions or removals reported in the most recent inventory submission for the corresponding inventory year. If a category differs from that used for the reporting under the Convention or its Kyoto Protocol, explain in the biennial report how the value was derived.

^d Enter one reference level or base year/period value for each category. Explain in the biennial report how these values have been calculated.

^e If applicable to the accounting approach chosen. Explain in this biennial report to which years or period the cumulative contribution refers to.

^f Label each accounting approach and indicate where additional information is provided within this biennial report explaining how it was implemented, including all relevant accounting parameters (i.e. natural disturbances, caps).

^g Specify what was used for the category "other". Explain in this biennial report how each was defined and how it relates to the categories used for reporting under the Convention or its Kyoto Protocol.

Custom Footnotes

Numbers for LULUCF are not reported because this sector is not included under the Convention target

Table 4(b)

LVA_BR2_v2.0

Reporting on progress^{a, b, c}

<i>Units of market based mechanisms</i>			<i>Year</i>	
			<i>2013</i>	<i>2014</i>
<i>Kyoto Protocol units^d</i>	<i>Kyoto Protocol units</i>	<i>(number of units)</i>	NA, NO	NO, NA
		<i>(kt CO₂ eq)</i>		
	<i>AAUs</i>	<i>(number of units)</i>	NA	NA
		<i>(kt CO₂ eq)</i>		
	<i>ERUs</i>	<i>(number of units)</i>	NA	NA
		<i>(kt CO₂ eq)</i>		
	<i>CERs</i>	<i>(number of units)</i>	NA	NA
<i>(kt CO₂ eq)</i>				
<i>tCERs</i>	<i>(number of units)</i>	NO	NO	
	<i>(kt CO₂ eq)</i>			
<i>ICERs</i>	<i>(number of units)</i>	NO	NO	
	<i>(kt CO₂ eq)</i>			
<i>Other units^{d,e}</i>	<i>Units from market-based mechanisms under the Convention</i>	<i>(number of units)</i>		
		<i>(kt CO₂ eq)</i>		
	<i>Units from other market-based mechanisms</i>	<i>(number of units)</i>		
		<i>(kt CO₂ eq)</i>		
<i>Total</i>	<i>(number of units)</i>	NA, NO	NO, NA	
	<i>(kt CO₂ eq)</i>			

Abbreviations : AAUs = assigned amount units, CERs = certified emission reductions, ERUs = emission reduction units, ICERs = long-term certified emission reductions, tCERs = temporary certified emission reductions.

Note: 2011 is the latest reporting year.

Table 5

LVA_BR2_v2.0

Summary of key variables and assumptions used in the projections analysis^a

Key underlying assumptions		Historical ^b										Projected		
Assumption	Unit	1990	1995	2000	2005	2010	2011	2013	2015	2020	2025	2030		
Population	thousands					2,097.55	2,059.71	2,012.65	1,979.90	1,938.73	1,926.86	1,923.88		
Number of households	thousands					825.60	817.00	823.30	816.82	817.01	829.45	845.95		
gross domestic product	MEUR(2010)					18,367.88	19,074.04	20,841.25	21,755.60	26,779.27	33,041.48	38,852.36		
Gross value added industry	MEUR(2010)					2,775.83	2,790.00	2,811.11	2,968.13	3,668.74	4,765.17	5,945.78		
EU ETS carbon price	EUR(2000)/EUA								4.08	8.17	11.43	28.58		
Coal import prices	EUR(2000)/GJ					2.09	2.58	2.49	3.47	4.05	4.24	4.43		
Crude oil import prices	EUR(2000)/GJ					10.58	12.37	11.75	12.06	12.87	14.09	15.43		
Natural gas import prices	EUR(2000)/GJ					5.53	6.07	7.60	7.23	7.54	8.08	8.66		
Number of passenger-kilometres (all modes)	Mpkm					16,195.28	14,938.24	14,612.83	14,801.97	16,309.16	17,701.41	18,667.95		
Freight transport tonnes-kilometres (all modes)	Mtkm					27,769.00	33,541.00	32,348.00	32,945.28	35,788.08	38,768.08	41,139.51		
Number of heating degree days (HDD)	count					4,622.25	3,939.94	4,092.00	4,092.00	4,092.00	4,092.00	4,092.00		
Household size (inhabitants/household)	count					2.54	2.52	2.44	2.42	2.37	2.32	2.27		
Livestock-dairy cattle	thousands					164.10	164.10	165.00	170.00	195.00	213.00	231.00		
Livestock - non-dairy cattle	thousands					215.40	216.50	241.50	272.00	290.00	307.50	325.00		
Livestock -sheep	thousands					76.80	79.70	84.80	96.00	119.00	142.00	165.00		
Livestock -pig	thousands					389.70	375.00	367.50	361.00	374.00	393.00	412.00		
Livestock-poultry	thousands					4,948.70	4,417.90	4,985.80	5,359.00	6,089.00	6,770.50	7,452.00		
Nitrogen input from application of synthetic fertilizers	kt N					59.50	59.80	69.70	69.70	90.00	100.00	110.00		
Nitrogen input from application of manure	kt N					16.02	16.30	17.42	16.53	19.42	21.87	24.31		
Nitrogen in crop residues returned to soils	kt N					14.24	16.62	18.54	22.25	26.70	29.37	32.04		
Area of cultivated organic soils	ha					126,450.00	126,332.00	126,028.00	127,145.64	132,322.34	133,102.34	133,702.34		
Municipal solid waste (MSW) generation	t					1,131,000.0	1,535,000.0	1,779,000.0	1,968,928.5	2,188,770.1	2,389,704.4	2,577,054.3		
Municipal solid waste (MSW) going to landfills	t					0	0	0	0	0	0	0		
Share of CH4 recovery in total CH4 generation from landfills	%					26.20	27.40	28.20	31.20	40.92	42.91	44.60		
Primary energy consumption - coal	PJ					5.75	6.87	5.26	4.69	12.89	21.55	31.03		
Primary energy consumption - oil	PJ					64.58	59.50	59.27	58.60	60.27	61.78	62.97		
Primary energy consumption - natural gas	PJ					61.31	54.03	50.27	54.63	54.79	43.79	38.35		
Primary energy consumption - renewables	PJ					61.38	59.34	67.46	68.78	57.93	56.89	55.80		
Primary energy consumption - total	PJ					193.03	179.74	182.26	186.70	185.87	184.00	188.16		
Gross electricity production - coal	TWh					0.02	0.00	0.00	0.00	0.13	0.18	0.77		
Gross electricity production - oil	TWh					0.01	0.00	0.00	0.00	0.04	0.00	0.00		
Gross electricity production - natural gas	TWh					2.95	3.01	2.67	2.49	2.83	2.56	2.50		
Gross electricity production - renewables	TWh					3.63	3.08	3.53	3.76	3.85	3.98	3.95		
Gross electricity production - total	TWh					6.63	6.09	6.21	6.25	6.86	6.72	7.23		
Total net electricity imports	TWh					0.87	1.25	1.36	2.23	1.96	2.50	2.50		
Final energy consumption - industry	PJ					32.47	31.32	32.16	37.01	38.33	42.99	47.49		
Final energy consumption-Transport	PJ					50.27	45.98	45.32	44.84	46.00	47.44	48.60		
incl.final energy demand for road transport	PJ					42.09	36.64	35.67	36.13	36.76	37.62	38.40		
Final energy consumption-Residential	PJ					59.66	55.54	53.07	53.70	51.33	45.35	42.79		
Final energy consumption-Agriculture-Forestry	PJ					6.58	6.46	6.48	6.73	7.08	7.59	7.94		
Final energy consumption - Services	PJ					25.65	23.45	25.26	24.56	24.93	24.42	24.32		
Final energy consumption-Total	PJ					174.63	162.76	162.28	166.84	167.67	167.78	171.14		

^a Parties should include key underlying assumptions as appropriate.^b Parties should include historical data used to develop the greenhouse gas projections reported.

Custom Footnotes

Table 6(a)

LVA_BR2_v2.0

Information on updated greenhouse gas projections under a 'with measures' scenario^a

	<i>GHG emissions and removals^b</i>							GHG emission projections	
	<i>(kt CO₂ eq)</i>							<i>(kt CO₂ eq)</i>	
	<i>Base year (1990)</i>	1990	1995	2000	2005	2010	2013	2020	2030
Sector^{d,e}									
Energy	16,227.79	16,227.79	7,447.20	5,177.50	5,015.46	5,202.14	4,358.51	5,446.04	6,067.97
Transport	3,030.67	3,030.67	2,099.74	2,206.18	3,095.67	3,250.65	2,826.58	2,860.19	3,014.31
Industry/industrial processes	602.66	602.66	151.77	158.61	229.46	566.74	668.97	882.06	1,116.93
Agriculture	5,558.66	5,558.66	2,255.51	1,859.64	2,015.26	2,140.57	2,310.12	2,757.24	3,277.38
Forestry/LULUCF	-8,899.50	-8,899.50	-9,505.90	-7,130.69	-4,098.21	881.52	-147.78	4,905.55	7,133.75
Waste management/waste	764.59	764.59	663.06	745.31	683.93	736.84	749.54	570.71	512.45
Other (specify)									
Gas									
CO ₂ emissions including net CO ₂ from LULUCF	9,756.92	9,756.92	-1,369.62	-1,092.84	2,708.24	8,376.65	6,080.75	12,650.01	15,827.91
CO ₂ emissions excluding net CO ₂ from LULUCF	19,539.34	19,539.34	9,059.01	7,012.42	7,733.03	8,478.49	7,276.02	8,707.91	9,681.52
CH ₄ emissions including CH ₄ from LULUCF	4,299.65	4,299.65	2,652.30	2,339.18	2,279.00	2,263.10	2,385.07	2,287.50	2,492.47
CH ₄ emissions excluding CH ₄ from LULUCF	3,995.93	3,995.93	2,337.68	1,995.39	1,998.30	1,958.76	2,036.42	1,978.96	2,151.91
N ₂ O emissions including N ₂ O from LULUCF	3,228.30	3,228.30	1,827.86	1,763.86	1,926.05	2,051.69	2,183.16	2,325.33	2,552.88
N ₂ O emissions excluding N ₂ O from LULUCF	2,649.10	2,649.10	1,219.75	1,133.07	1,280.18	1,372.67	1,484.32	1,670.42	1,906.07
HFCs	NO, NA, NE	NO, NA, NE	0.67	5.47	24.51	79.68	108.46	148.22	233.97
PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NA, NO	NA, NO
SF ₆	NO, NA, NE	NO, NA, NE	0.17	0.88	3.78	7.35	8.50	10.72	15.54
Other (specify)									
Total with LULUCF^f	17,284.87	17,284.87	3,111.38	3,016.55	6,941.58	12,778.47	10,765.94	17,421.78	21,122.77
Total without LULUCF	26,184.37	26,184.37	12,617.28	10,147.23	11,039.80	11,896.95	10,913.72	12,516.23	13,989.01

Information on updated greenhouse gas projections under a ‘with measures’ scenario^a

	<i>GHG emissions and removals^b</i>							GHG emission projections	
	<i>(kt CO₂ eq)</i>							<i>(kt CO₂ eq)</i>	
	<i>Base year (1990)</i>	1990	1995	2000	2005	2010	2013	2020	2030

Abbreviations : GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a In accordance with the “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications”, at a minimum Parties shall report a ‘with measures’ scenario, and may report ‘without measures’ and ‘with additional measures’ scenarios. If a Party chooses to report ‘without measures’ and/or ‘with additional measures’ scenarios they are to use tables 6(b) and/or 6(c), respectively. If a Party does not choose to report ‘without measures’ or ‘with additional measures’ scenarios then it should not include tables 6(b) or 6(c) in the biennial report.

^b Emissions and removals reported in these columns should be as reported in the latest GHG inventory and consistent with the emissions and removals reported in the table on GHG emissions and trends provided in this biennial report. Where the sectoral breakdown differs from that reported in the GHG inventory Parties should explain in their biennial report how the inventory sectors relate to the sectors reported in this table.

^c 20XX is the reporting due-date year (i.e. 2014 for the first biennial report).

^d In accordance with paragraph 34 of the “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications”, projections shall be presented on a sectoral basis, to the extent possible, using the same sectoral categories used in the policies and measures section. This table should follow, to the extent possible, the same sectoral categories as those listed in paragraph 17 of those guidelines, namely, to the extent appropriate, the following sectors should be considered: energy, transport, industry, agriculture, forestry and waste management.

^e To the extent possible, the following sectors should be used: energy, transport, industry/industrial processes, agriculture, forestry/LULUCF, waste management/waste, other sectors (i.e. cross-cutting), as appropriate.

^f Parties may choose to report total emissions with or without LULUCF, as appropriate.

Custom Footnotes

Table 6(c)

LVA_BR2_v2.0

Information on updated greenhouse gas projections under a 'with additional measures' scenario^a

	GHG emissions and removals ^b							GHG emission projections	
	(kt CO ₂ eq)							(kt CO ₂ eq)	
	Base year (1990)	1990	1995	2000	2005	2010	2013	2020	2030
Sector^{d,e}									
Energy	16,227.79	16,227.79	7,447.20	5,177.50	5,015.46	5,202.14	4,358.51	4,429.40	4,428.84
Transport	3,030.67	3,030.67	2,099.74	2,206.18	3,095.67	3,250.65	2,826.58	2,658.18	2,784.19
Industry/industrial processes	602.66	602.66	151.77	158.61	229.46	566.74	668.97	882.06	1,116.93
Agriculture	5,558.66	5,558.66	2,255.51	1,859.64	2,015.26	2,140.57	2,310.12	2,543.59	2,906.78
Forestry/LULUCF	-8,899.50	-8,899.50	-9,505.90	-7,130.69	-4,098.21	881.52	-147.78	4,905.55	7,133.75
Waste management/waste	764.59	764.59	663.06	745.31	683.93	736.84	749.54	570.75	452.04
Other (specify)									
Gas									
CO ₂ emissions including net CO ₂ from LULUCF	9,756.92	9,756.92	-1,369.62	-1,092.84	2,708.24	8,376.65	6,080.75	11,421.16	13,944.68
CO ₂ emissions excluding net CO ₂ from LULUCF	19,539.34	19,539.34	9,059.01	7,012.42	7,733.03	8,478.49	7,276.02	7,479.06	7,798.29
CH ₄ emissions including CH ₄ from LULUCF	4,299.65	4,299.65	2,652.30	2,339.18	2,279.00	2,263.10	2,385.07	2,151.48	2,193.28
CH ₄ emissions excluding CH ₄ from LULUCF	3,995.93	3,995.93	2,337.68	1,995.39	1,998.30	1,958.76	2,036.42	1,842.94	1,852.73
N ₂ O emissions including N ₂ O from LULUCF	3,228.30	3,228.30	1,827.86	1,763.86	1,926.05	2,051.69	2,183.16	2,257.96	2,435.04
N ₂ O emissions excluding N ₂ O from LULUCF	2,649.10	2,649.10	1,219.75	1,133.07	1,280.18	1,372.67	1,484.32	1,603.04	1,788.23
HFCs	NO, NA, NE	NO, NA, NE	0.67	5.47	24.51	79.68	108.46	148.22	233.97
PFCs	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NO, NA	NA, NO	NA, NO
SF ₆	NO, NA, NE	NO, NA, NE	0.17	0.88	3.78	7.35	8.50	10.72	15.54
Other (specify)									
Total with LULUCF^f	17,284.87	17,284.87	3,111.38	3,016.55	6,941.58	12,778.47	10,765.94	15,989.54	18,822.51
Total without LULUCF	26,184.37	26,184.37	12,617.28	10,147.23	11,039.80	11,896.95	10,913.72	11,083.98	11,688.76

Information on updated greenhouse gas projections under a ‘with additional measures’ scenario^a

	<i>GHG emissions and removals^b</i>							GHG emission projections	
	<i>(kt CO₂ eq)</i>							<i>(kt CO₂ eq)</i>	
	<i>Base year (1990)</i>	1990	1995	2000	2005	2010	2013	2020	2030

Abbreviations: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a In accordance with the “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications”, at a minimum Parties shall report a ‘with measures’ scenario, and may report ‘without measures’ and ‘with additional measures’ scenarios. If a Party chooses to report ‘without measures’ and/or ‘with additional measures’ scenarios they are to use tables 6(b) and/or 6(c), respectively. If a Party does not choose to report ‘without measures’ or ‘with additional measures’ scenarios then it should not include tables 6(b) or 6(c) in the biennial report.

^b Emissions and removals reported in these columns should be as reported in the latest GHG inventory and consistent with the emissions and removals reported in the table on GHG emissions and trends provided in this biennial report. Where the sectoral breakdown differs from that reported in the GHG inventory Parties should explain in their biennial report how the inventory sectors relate to the sectors reported in this table.

^c 20XX is the reporting due-date year (i.e. 2014 for the first biennial report).

^d In accordance with paragraph 34 of the “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications”, projections shall be presented on a sectoral basis, to the extent possible, using the same sectoral categories used in the policies and measures section. This table should follow, to the extent possible, the same sectoral categories as those listed in paragraph 17 of those guidelines, namely, to the extent appropriate, the following sectors should be considered: energy, transport, industry, agriculture, forestry and waste management.

^e To the extent possible, the following sectors should be used: energy, transport, industry/industrial processes, agriculture, forestry/LULUCF, waste management/waste, other sectors (i.e. cross-cutting), as appropriate.

^f Parties may choose to report total emissions with or without LULUCF, as appropriate.

Table 7(a)

LVA_BR2_v2.0

Provision of public financial support: contribution through multilateral channels in 2013^a

Donor funding	Total amount				Status ^b	Funding source ^f	Financial instrument ^f	Type of support ^{f,8}	Sector ^c
	Core/general ^d		Climate-specific ^e						
	European euro - EUR	USD	European euro - EUR	USD					
Total contributions through multilateral channels			10,000.00	13,281.00					
Multilateral climate change funds ^g									
1. Global Environment Facility									
2. Least Developed Countries Fund									
3. Special Climate Change Fund									
4. Adaptation Fund									
5. Green Climate Fund									
6. UNFCCC Trust Fund for Supplementary Activities									
7. Other multilateral climate change funds									
Multilateral financial institutions, including regional development banks			10,000.00	13,281.00					
1. World Bank									
2. International Finance Corporation									
3. African Development Bank									
4. Asian Development Bank									
5. European Bank for Reconstruction and Development			10,000.00	13,281.00	Provided	ODA	Grant	Mitigation	Energy
6. Inter-American Development Bank									
7. Other									
Specialized United Nations bodies									
1. United Nations Development Programme									
2. United Nations Environment Programme									
3. Other									

Abbreviations: ODA = official development assistance, OOF = other official flows.

^a Parties should fill in a separate table for each year, namely 2011 and 2012, where 2014 is the reporting year.

^b Parties should explain, in their biennial reports, the methodologies used to specify the funds as provided, committed and/or pledged. Parties will provide the information for as many status categories as appropriate in the following order of priority: provided, committed, pledged.

^c Parties may select several applicable sectors. Parties may report sectoral distribution, as applicable, under "Other".

^d This refers to support to multilateral institutions that Parties cannot specify as climate-specific.

^e Parties should explain in their biennial reports how they define funds as being climate-specific.

^f Please specify.

^g Cross-cutting type of support refers to funding for activities which are cross-cutting across mitigation and adaptation.

Custom Footnotes

Assumptions: 1-Domestic currency in 2013 was Latvian lats. According to data from Central Bank of Latvia (www.bank.lv) average year rate in 2013 - 1 USD=0.52954972 LVL. 2-Voluntary contribution to the Green Climate Fund (GCF), 350 000€, at the end of December 2014. 3-Voluntary contribution to the Eastern Europe Energy Efficiency and Environment partnership Fund (E5P), 35 000€, Year 2014. 4-Participation in the Eastern Europe Energy Efficiency and Environment partnership Fund (E5P) under agreement, Annually 10 000€, Year 2011-2015. In fact, payment for 2014 was carried out in 2015.

Table 8

Provision of technology development and transfer support^{a,b}

<i>Recipient country and/or region</i>	<i>Targeted area</i>	<i>Measures and activities related to technology transfer</i>	<i>Sector^c</i>	<i>Source of the funding for technology transfer</i>	<i>Activities undertaken by</i>	<i>Status</i>	<i>Additional information^d</i>
	Mitigation			Public	Public	Implemented	

^a To be reported to the extent possible.^b The tables should include measures and activities since the last national communication or biennial report.^c Parties may report sectoral disaggregation, as appropriate.^d Additional information may include, for example, funding for technology development and transfer provided, a short description of the measure or activity and co-financing arrangements.**Custom Footnotes**

Provision of capacity-building support^a

<i>Recipient country/region</i>	<i>Targeted area</i>	<i>Programme or project title</i>	<i>Description of programme or project^{b,c}</i>
Belarus, Ukraine	Mitigation	Raising stakeholder awareness on building energy efficiency in Russia, Belarus, Ukraine.	The aim of the project was to increase knowledge and understanding of energy saving and building energy efficiency opportunities through a comprehensive approach for the population, non-governmental organizations (NGOs) and future specialists, taking into account socio-economic, technical and environmental aspects. (2013)
Uzbekistan	Multiple Areas	Development cooperation project for sustainable environmental engineering education promotion between Urgench State University and Riga Technical University.	The aim of the project was to train Urgench State University students and staff in sustainable environmental engineering in order to be able to carry out such training program further by using their own staff/faculty. Thus, through raising the level of training of environmental engineering will contribute to the sustainable environmental development, including production of energy, by formation of knowledgeable professionals who will be able to implement their knowledge in practice.

^a To be reported to the extent possible.

^b Each Party included in Annex II to the Convention shall provide information, to the extent possible, on how it has provided capacity-building support that responds to the existing and emerging capacity-building needs identified by Parties not included in Annex I to the Convention in the areas of mitigation, adaptation and technology development and transfer.

^c Additional information may be provided on, for example, the measure or activity and co-financing arrangements.

Custom Footnotes